

0.40 to 1.60mm (.016 to .063") Pitch

PCB and Wire Connectors

A

SMT Board-to-Board Connectors

0.40mm (.016") Pitch	
Product Matrix	A-2
Stacking Connectors	A-3 to A-9
0.50mm (.020") Pitch	
Product Matrix	A-10
PCB Connectors	A-11
Stacking Connectors	A-10 to A-18
0.635mm (.025") Pitch	
Product Matrix	A-19
Stacking Connectors	A-20 to A-23
0.80mm (.031") Pitch	
Product Matrix	A-19
Stacking Connectors	A-25 to A-28
1.00mm (.039") Pitch	
Product Matrix	A-29
Stacking Connectors	A-30 to A-31
Mezzanine	A-32 to A-34
1.20mm (.047") Pitch	
Product Matrix	A-29
Mezzanine	A-38 to A-39

Wire-to-Wire, Wire-to-Board and Board-In Connectors

1.00mm (.039") Pitch	
Product Matrix	A-29
iLock™ Family	A-35 to A-37
1.25mm (.049") Pitch	
Product Matrix	A-40, A-47
Ultra Low Profile SMT System — PanelMate™	A-41 to A-43
Multi-Harness Single/Dual Row System — Mini MIII™	A-44 to A-46
Wire-to-Board Pico-Gold™	A-48 to A-49
Wire-to-Board and Wire-to-Wire PicoBlade™	A-49 to A-53
Board-In Connectors	A-54
Board-to-Board ZIGZAG Connectors	A-55
1.27mm (.050") Pitch	
Product Matrix	A-56
Board-to-Board SEARAY*	A-57
1.50mm (.059") Pitch	
Product Matrix	A-56
High Speed Docking Plateau HS Dock™	A-58 to A-59
Wire-to-Board Pico-SPOX™	A-60 to A-61
1.60mm (.062") Pitch	
Product Matrix	A-56
Detachable Board-to-Board Connectors	A-62 to A-63

*SEARAY is a trademark of Samtec, Inc.

0.40mm (.016") Pitch

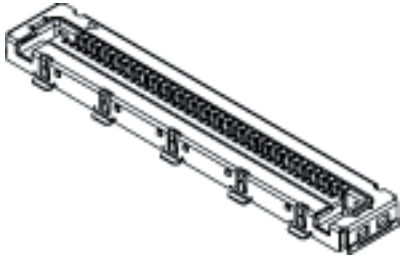
A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

Pitch	Series		Tradename	Description	Stacking Height
0.40mm (.016")	501083			PCB Receptacle, Vertical	
	501044			PCB Receptacle, Right Angle	
	501800			Cable Plug Assembly	
	54477		SlimStack™	Receptacle	4.00mm (.157")
	55339			Plug	4.00mm (.157")
	54765			Receptacle	1.50mm (.059")
	55604			Plug	1.50mm (.059")
	500913			Receptacle	1.80mm (.071")
	55909			Plug	1.50mm (.059")
	54876			Receptacle	2.50mm (.098")
	55686			Plug	2.50 and 3.00mm (.098 and .118")
	54684			Receptacle	3.50mm (.138")
	87820			Receptacle	0.95mm (.037")
	87819			Plug	0.95mm (.037")

0.40mm (.016") Pitch PCB Receptacle

501083
SMT, Vertical



Circuits	Order No.	Lead-free
40	501083-4010	Yes

Features and Benefits

- Provides convenient top-side mating for hard-to-reach areas
- Polarization features help facilitate proper mating
- Grounding tabs provide shielding protection against ESD
- Friction lock provides secure mating retention
- Terminal design offers long wipe length

Reference Information

Product Specification: PS-501044-001
Packaging: Embossed tape on reel
Mates With: 501800
Designed In: Millimeters

Electrical

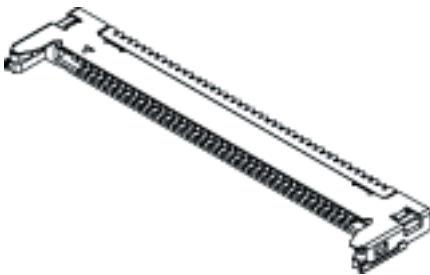
Voltage: 30V
Current: 0.2A max.
Dielectric Withstanding Voltage: 125V AC
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold
Underplating: Nickel
Operating Temperature: -30 to +75°C

0.40mm (.016") Pitch PCB Receptacle

501044
SMT, Right Angle



Circuits	Order No.	Lead-free
40	501044-4010	Yes

Features and Benefits

- Low profile of 1.15mm (0.45")
- Polarization features help facilitate proper mating
- Side grounding tabs provide shielding protection against ESD
- Friction lock provides secure mating retention
- Terminal design offers long wipe length

Reference Information

Product Specification: PS-501044-001
Packaging: Embossed tape on reel
Mates With: 501800
Designed In: Millimeters

Electrical

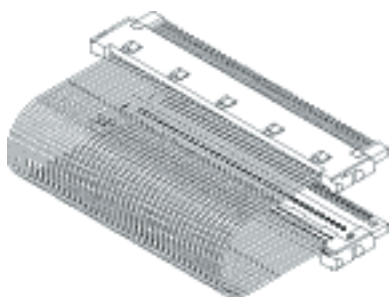
Voltage: 30V
Current: 0.2A max.
Dielectric Withstanding Voltage: 125V AC
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold
Underplating: Nickel
Operating Temperature: -30 to +75°C

0.40mm (.016") Pitch Cable Plug Assembly

501800



Features and Benefits

- "Double-clamp" grounding method provides superior shielding and signal integrity
- IDT termination provides more reliable and efficient assembly versus solder methods
- Ultra-thin coaxial cable provides high speed and space savings

Reference Information

Product Specification: PS-501044-001
 Packaging: Tray
 Mates With: 501044 and 501083
 Designed In: Millimeters

Electrical

Voltage: 30V
 Current: 0.2A max.
 Contact Resistance: 45 milliohms max.
 Dielectric Withstanding Voltage: 125V AC
 Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled LCP
 Contact: Copper Alloy
 Plating: Contact Area—Gold
 Operating Temperature: -30 to +75°C

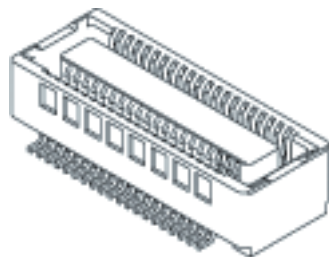
Circuits	Order No.	Connector Ends	Length	Lead-free
40	501800-XXX0	Side-Entry/Side-Entry	100mm (3.94")	Yes
	501800-XXX1	Top Entry/Side-Entry		
	501800-XXX2	Top Entry/Top Entry		

Note: Contact Molex for ordering numbers and further details

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

54477

SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking height: 4.00mm (.157")
- Sizes 80 and 120 circuits
- Polarizing pegs assist placement
- Anti-flux design
- Durable blade-on-beam contact interface

Reference Information

Product Specification: PS-54477-008
 Packaging: Embossed tape
 Mates With: 55339
 Designed In: Millimeters

Electrical

Voltage: 30V
 Current: 0.3A
 Contact Resistance: 60 milliohms max.
 Dielectric Withstanding Voltage: 250V AC/1 min.
 Insulation Resistance: 100 Megohms min.

Physical

Housing: Brown glass-filled LCP, UL 94V-0
 Contact: Phosphor Bronze
 Plating: Contact Area—10µ" min. Gold
 Solder Tail Area—16µ" min. Gold
 Underplating: Nickel
 Operating Temperature: -25 to +105°C

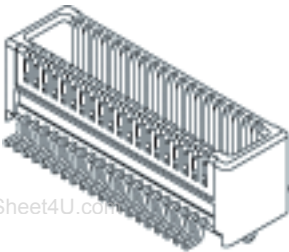
Circuits	Order No.	Carrier Tape Width	Lead-free
80	54477-0808	32.00 (1.260)	Yes
120	54477-1208	44.00 (1.732)	

Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55339
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 4.00mm (.157")
- Sizes 80 and 120 circuits
- SMT tail design provides strong solder joints and visible inspection
- Positioning pegs assist placement

Reference Information

Product Specification: PS-54477-008
Packaging: Embossed tape
Mates With: 54477
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.3A
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

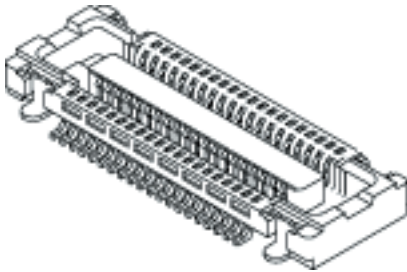
Housing: Brown glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—10µ" min. Gold
Solder Tail Area—16µ" min. Gold
Underplating: Nickel
Operating Temperature: -25 to +105°C

Circuits	Order No.	Carrier Tape Width	Lead-free
80	55339-0808	32.00 (1.260)	Yes
120	55339-1208	44.00 (1.732)	

Note: Contact Molex for embossed tape specifications
Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

54765
SMT, Dual Row, Vertical Stacking
1.50mm (.059") Stacking Height
With Solder Tabs and Mating Guide



Features and Benefits

- Stacking height of 1.50mm (.059")
- Housing guide provides mating alignment
- Metal friction lock provides secure mating retention
- High-temperature housing
- Durable blade-on-beam contact interface

Reference Information

Product Specification: PS-54765-012
Packaging: Embossed tape on reel
Mates With: 55604
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.3A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

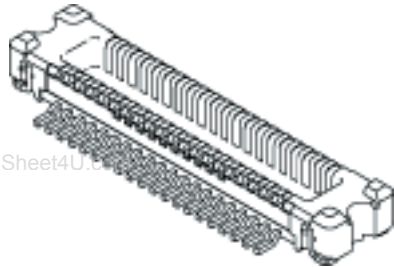
Physical

Housing: Black glass-filled LCP Liquid Crystal Polymer, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold
Solder Tail Area—Gold
Underplating: Nickel
Operating Temperature: -25 to +85°C

Circuits	Order No.		Lead-free
	With Peg	Without Peg	
22		54765-2270	Yes
30	54765-0377	54765-3070	
40		54765-4070	
44		54765-4470	
50	54765-0577	54765-5070	
54		54765-5470	
70	54765-0777	54765-7070	
80	54765-0877	54765-8070	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55604
SMT, Dual Row, Vertical Stacking,
1.50mm (.059") Stacking Height
With Solder Tab and Mating Guides



Features and Benefits

- Stacking height of 1.50mm (.059")
- Housing guide provides mating alignment
- Available with or without locating pegs for accurate placement on PCB
- Metal friction lock provides secure mating retention
- High-temperature housing

Reference Information

Product Specification: PS-54765-012, PS-54765-013
Packaging: Embossed tape on reel
Mates With: 54765
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.3A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

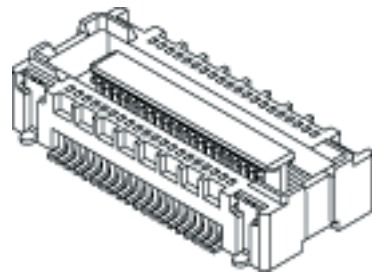
Housing: Black glass-filled LCP Liquid Crystal Polymer,
UL 94V-0
Contact: Brass
Plating: Contact Area—Gold
Solder Tail Area—Gold
Underplating: Nickel
Operating Temperature: -25 to +85°C

Circuits	Order No.		Lead-free
	With Pegs	Without Pegs	
22		55604-2270	Yes
30	55604-3078	55604-3070	
40		55604-4070	
44		55604-4470	

Circuits	Order No.		Lead-free
	With Pegs	Without Pegs	
50	55604-5078	55604-5070	Yes
54	55604-5478		
70	55604-7078	55604-7070	
80	55604-8078	55604-8070	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

500913
SMT, Dual Row
Vertical Stacking
1.80mm (.071") Stacking Height
With Solder Tabs



Features and Benefits

- Terminal friction lock provides secure mating retention
- Four solder tabs provide secure PCB hold-down
- Lead-free plating meets environmental requirements

Reference Information

Product Specification: PS-500913-001
Packaging: Embossed tape on reel
Mates With: 55909
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.3A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

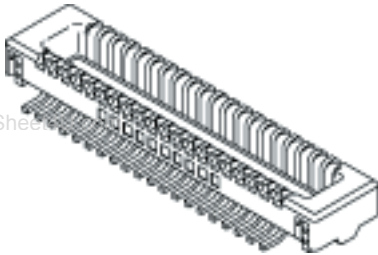
Physical

Housing: Black glass-filled LCP Liquid Crystal Polymer,
UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold
Solder Tail Area—Gold
Underplating: Nickel
Operating Temperature: -25 to +85°C

Circuits	Order No.	Lead-free
24	500913-0242	Yes
40	500913-0402	
50	500913-0502	
60	500913-0602	
70	500913-0702	
100	500913-1002	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55909
SMT, Dual Row, Vertical Stacking
1.50mm (.059") Stacking Height
With Space Saving J-Lead
Solder Tails



Features and Benefits

- J-Lead SMT solder tails offer space savings
- Solder tabs provide PCB hold-down and solder joint protection

Reference Information

Product Specification: PS-51338-002
Packaging: Embossed tape on reel
Mates With: 51338 and 500913
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.3A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

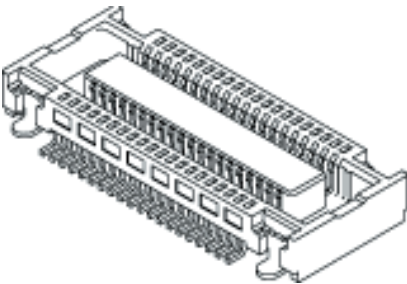
Physical

Housing: Black glass-filled LCP Liquid Crystal Polymer, UL 94V-0
Contact: Brass
Plating: Contact Area—Gold
Solder Tail Area—Gold
Underplating: Nickel
PCB Thickness:
Operating Temperature: -25 to +85°C

Circuits	Order No.	Lead-free
20	55909-0274	Yes
22	55909-2274	
30	55909-0374	
40	55909-0474	
50	55909-0574	
60	55909-0674	
70	55909-0774	
80	55909-0874	
100	55909-1074	

0.40mm (.016") Pitch Board-to-Board SlimStack™ Receptacle

54876
Surface Mount, Dual Row,
Vertical Stacking, 2.50mm (.098")
Stacking Height, with Solder Tabs



Features and Benefits

- Stacking height of 2.50mm (.098")
- Locking feature provides secure mating
- High-temperature housing
- Durable blade on beam contact interface
- Surface mount solder tabs provide PCB retention and strain relief for PC tails

Reference Information

Product Specification: PS-54765-012
Packaging: Embossed tape on reel
Mates With: 55686
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.3A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

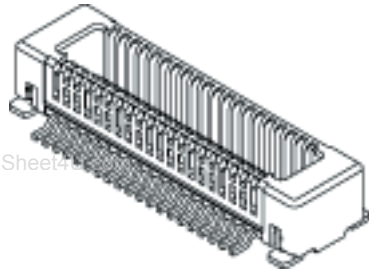
Housing: Black glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold
Solder Tail Area—Gold
Underplating: Nickel
Operating Temperature: -25 to +85°C

Circuits	Order No.	Lead-free
40	54876-0474	Yes
120	54876-1274	

0.40mm (.016") Pitch SlimStack™ Board-to-Board Plug

55686

**SMT, Dual Row, Vertical Stacking
2.50 and 3.00mm (.098 and .118")
Stacking Height**



Circuits	Order No.	Lead-free
40	55686-0474	Yes
120	55686-1274	

Features and Benefits

- Stacking height of 2.50 and 3.00mm (.098 and .118")
- Locking feature provides secure mating
- High-temperature housing

Reference Information

Packaging: Embossed tape on reel
Mates With: 500120, 500288 and 54876
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.3A
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

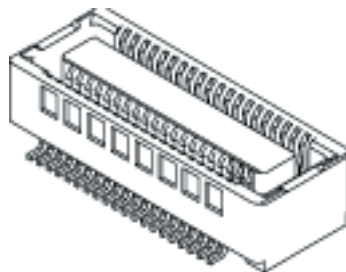
Physical

Housing: Black glass-filled LCP Liquid Crystal Polymer,
UL 94V-0
Contact: Brass
Plating: Contact Area—Gold
Solder Tail Area—Gold
Underplating: Nickel
Operating Temperature: -25 to +85°C

0.40mm (.016") Pitch SlimStack™ Board-to-Board Receptacle

54684

**SMT, Dual Row, Vertical Stacking
3.50mm (.138") Stacking Height**



Circuits	Order No.	Lead-free
24	54684-0244	Yes
70	54684-0704	
90	54684-0904	
120	54684-1204	

Features and Benefits

- Locking feature provides secure mating
- High-temperature housing
- Durable blade-on-beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54684-006
Packaging: Embossed tape on reel
Mates With: 55526
Designed In: Millimeters

Electrical

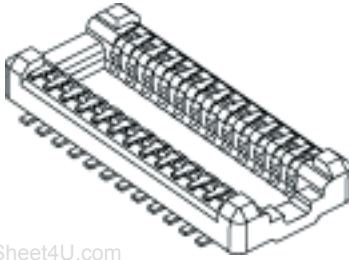
Voltage: 30V
Current: 0.3A
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Brown glass-filled LCP Liquid Crystal Polymer,
UL 94V-0
Contact: Phosphor Bronze
Plating: Contact Area—Gold
Solder Tail Area—Gold
Underplating: Nickel
Operating Temperature: -25 to +105°C

0.40mm (.016") Pitch Board-to-Board Receptacle

87820
SMT, Dual Row
0.95mm (.037") Height



www.DataSheet4U.com

Features and Benefits

- Cantilever-type gold contacts able to withstand severe shock and vibration
- Flat housing area facilitates auto pick-and-place
- High-temperature LCP housing material allows high-temperature SMT soldering processes
- Embossed tape packaging enables pick-and-place assembly
- High-coating on housings provides anti-solder wicking
- Wide-angled mating surface minimizes risk of damage during mating
- Good SMT tail co-planarity assures good solder joints on PCB

Reference Information

Product Specification: PS-87820-028
UL File No.: E29179
CSA File No.: 1699280
Packaging: Embossed tape on reel
Mates With: 87819
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.1A
Contact Resistance: 90 milliohms max.
Dielectric Withstanding Voltage: 125V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention: 0.5N
Durability: 10 cycles

Physical

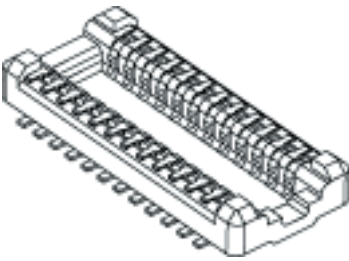
Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.1µm (0.4µ") Gold
Solder Tail Area—0.1µm (0.4µ") Gold
Underplating: Nickel
Operating Temperature: -25 to +85°C

Circuits	Order No.		Lead-free
	Without Solder Tab	With Solder Tab	
14	87820-0014	87820-0514	Yes
24	87820-0024	87820-0524	
30	87820-0030	87820-0530	
40	87820-0040	87820-0540	
50	87820-0050	87820-0550	
60	87820-0060	87820-0560	

www.molex.com/customer.html?seriesNumber=87820

0.40mm (.016") Pitch Board-to-Board Plug

87819
SMT, Dual Row
0.95mm (.037") Height



Features and Benefits

- Cantilever-type gold contacts able to withstand severe shock and vibration
- Flat housing area facilitates auto pick-and-place
- High-temperature LCP housing material allows high-temperature SMT soldering processes
- Embossed tape packaging enables pick-and-place assembly
- High-coating on housings provides anti-solder wicking
- Wide-angled mating surface minimizes risk of damage during mating
- Good SMT tail co-planarity assures good solder joints on PCB

Reference Information

Product Specification: PS-87820-028
UL File No.: E29179
CSA File No.: 1699280
Packaging: Embossed tape on reel
Mates With: 87820
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.1A
Contact Resistance: 90 milliohms max.
Dielectric Withstanding Voltage: 125V AC
Insulation Resistance: 100 Megohms min.

Mechanical

Contact Retention: 0.5N
Durability: 10 cycles

Physical

Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.1µm (0.4µ") Gold
Solder Tail Area—0.1µm (0.4µ") Gold
Underplating: Nickel
Operating Temperature: -25 to +85°C

Circuits	Order No.		Lead-free
	Without Solder Tab	With Solder Tab	
14	87819-0014	87819-0514	Yes
24	87819-0024	87819-0524	
30	87819-0030	87819-0530	
40	87819-0040	87819-0540	
50	87819-0050	87819-0550	
60	87819-0060	87819-0560	

www.molex.com/customer.html?seriesNumber=87819

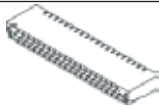

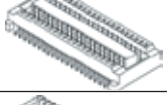
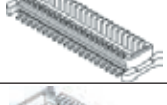
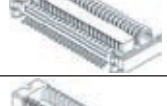
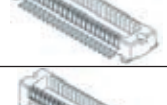

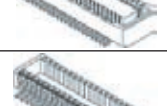

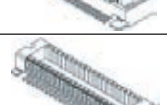
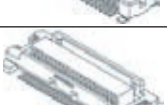
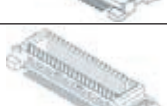

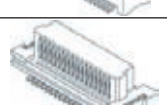
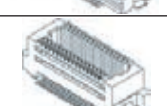
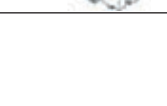


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MX07 A-9

0.50mm (.020") Pitch

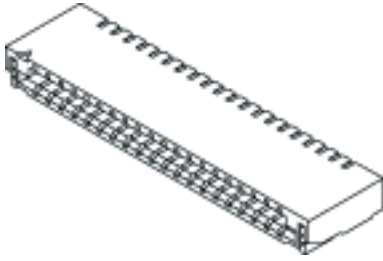
A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

Pitch	Series		Tradename	Description	Stacking Height
0.50mm (.020")	500678		SlimStack™	PCB Receptacle, Right Angle	1.20mm (.047")
	59205			Cable Plug Assembly	
	54729			Receptacle	2.00mm (.079")
	55559			Plug	2.00mm (.079")
	54363			Receptacle	2.00 and 3.00mm (.079 and .118")
	55201			Plug	2.00mm (.079")
	55299			Plug	3.00mm (.118")
	54102			Receptacle	2.50mm (.098")
	53885/500334			Plug	2.50mm (.098")
	54150			Receptacle	2.50mm (.098")
	53949			Plug	2.50mm (.098")
	52991/54167			Receptacle	3.00 and 4.00mm (.118 and .157")
	53748			Plug	3.00mm (.118")
	53916			Plug	4.00mm (.157")
	54230			Receptacle	5.50mm (.217")
	55055			Plug	5.50mm (.217")

0.50mm (.020") Pitch PCB Receptacle

500678
SMT, Right Angle



Circuits	Order No.	Lead-free
20	500678-2070	Yes
30	500678-3070	

Features and Benefits

- Compact size provides space savings
- Solder tabs provide secure PCB retention
- Connector-to-connector polarization ensures proper mating
- Friction lock provides secure mating retention

Reference Information

Product Specification: PS-500678-001
Packaging: Embossed tape on reel
Mates With: 59205
Designed In: Millimeters

Electrical

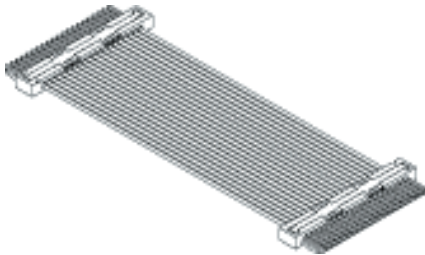
Voltage: 30V
Current: 0.4A max.
Dielectric Withstanding Voltage: 200V AC
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold
Solder Tail Area—Tin
Underplating: Nickel
Operating Temperature: -20 to +60°C

0.50mm (.020") Pitch Cable Plug Assembly

59205



Circuits	Order No.	Lead-free
20	59205-9401	Yes
30	59205-9402	

Features and Benefits

- Friction lock ensures high retention force
- Retainer provides strain relief to solder termination areas

Reference Information

Product Specification: PS-500678-001
Packaging: Bag
Mates With: 500678
Designed In: Millimeters

Electrical

Voltage: 30V
Current: 0.4A max.
Contact Resistance: 45 milliohms max.
Dielectric Withstanding Voltage: 125V AC
Insulation Resistance: 100 Megohms min.

Physical

Housing: White glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold
Wire Termination Area—Tin
Underplating: Nickel
Operating Temperature: -30 to +75°C

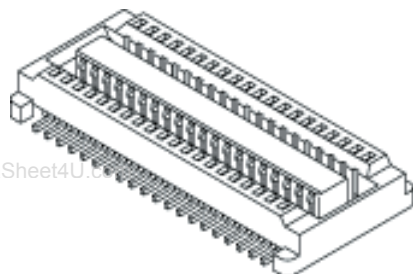
A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle

54729

**SMT, Dual Row, Vertical Stacking
2.00mm (.079") Stacking Height
Lower Circuit Size Version**



Circuits	Order No.	Lead-free
16	54729-0166	Yes
20	54729-0206	
24	54729-0246	

Features and Benefits

- Stacking Height: 2.00mm (.079")
- Locking feature provides secure mating
- Durable blade-on-beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54729-012
 Packaging: Embossed tape on reel
 Mates With: 55559
 Designed In: Millimeters

Electrical

Voltage: 50V
 Current: 0.5A
 Contact Resistance: 30 milliohms max.
 Dielectric Withstanding Voltage: 500V AC/1 min.
 Insulation Resistance: 500 Megohms min.

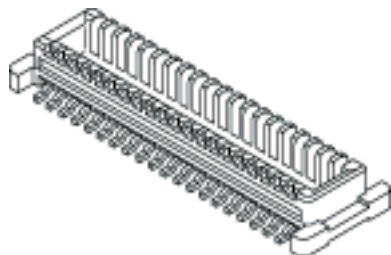
Physical

Housing: Black glass-filled LCP Liquid Crystal Polymer,
 UL 94V-0
 Contact: Phosphor Bronze
 Plating: Contact Area—0.25µm Gold
 Solder Tail Area—Gold
 Underplating: Nickel
 Operating Temperature: -40 to +85°C

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

55559

**SMT, Dual Row, Vertical Stacking
2.00mm (.079") Stacking Height**



Circuits	Order No.	Lead-free
16	55559-0168	No
24	55559-0248	

Features and Benefits

- Metal friction lock provides secure mating
- Durable blade-on-beam contact interface
- Anti-flux design

Reference Information

Product Specification: PS-54729-012
 Packaging: Embossed tape on reel
 Mates With: 54729
 Designed In: Millimeters

Electrical

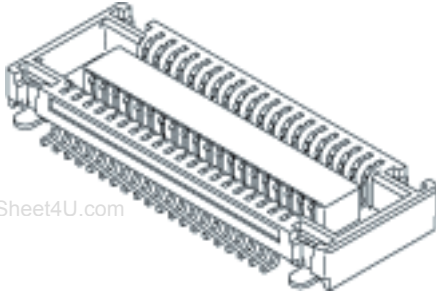
Voltage: 50V
 Current: 0.5A
 Contact Resistance: 30 milliohms max.
 Dielectric Withstanding Voltage: 500V AC/1 min.
 Insulation Resistance: 500 Megohms min.

Physical

Housing: Black glass-filled LCP Liquid Crystal Polymer,
 UL 94V-0
 Contact: Brass
 Plating: Contact Area—Gold
 Solder Tail Area—Gold
 Underplating: Nickel
 Operating Temperature: -40 to +105°C

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle Housing

54363
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 2.00 (.079") and 3.00mm (.118")
- Sizes 20 to 140 circuits
- Locking feature provides secure mating
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Packaging: Embossed
Mates With: 55201 and 55299
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A*
Contact Resistance:
Mate With 55201: 40 milliohms max.
Mate With 55299: 50 Megohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 MW min.

Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Solder tab: Copper Alloy, Tin over Nickel plating
Operating Temperature: -25 to +85°C
* Total current must not exceed 10A max.

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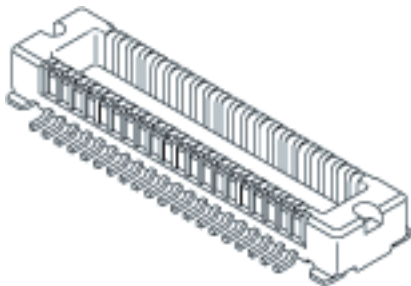
Circuits	Order No.	Carrier Tape Width	Lead-free
20	54363-0278	16.00 (.630)	Yes
30	54363-0378	24.00 (.945)	
40	54363-0478		
50	54363-0578		

Circuits	Order No.	Carrier Tape Width	Lead-free
80	54363-0878	44.00 (1.732)	Yes
100	54363-1078		
120	54363-1278	56.00 (2.205)	
140	54363-1478		

Note: Contact Molex for embossed tape specifications
Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

55201
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 2.00mm (.079")
- Sizes 20 to 140 circuits
- Locking feature provides secure mating
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Packaging: Embossed
Mates With: 54363
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A*
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

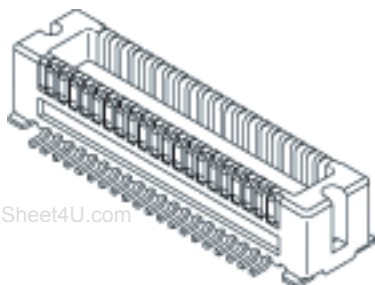
Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Solder Tab: Copper Alloy, Tin over Nickel plating
Operating Temperature: -25 to +85°C
* Total current must not exceed 10A max.

Circuits	Order No.	Carrier Tape Width	Lead-free
20	55201-0278	16.00 (.630)	Yes
30	55201-0378	24.00 (.945)	
40	55201-0478		
50	55201-0578		
80	55201-0878	44.00 (1.732)	
120	55201-1278		
140	55201-1478	56.00 (2.205)	

Note: Contact Molex for embossed tape specifications
Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

55299
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 3.00mm (.118")
- Sizes 20 to 140 circuits
- Locking feature provides secure mating
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Packaging: Embossed
Mates With: 54363
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A*
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 125V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Solder Tab: Copper Alloy, Tin over Nickel plating
Operating Temperature: -25 to +85°C

* Total current must not exceed 10A max.

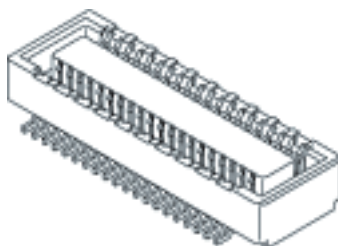
Circuits	Order No.	Carrier Tape Width	Number of Board Locks	Lead-free
20	55299-0278	16.00 (.630)	20	Yes
30	55299-0378	24.00 (.945)	30	
40	55299-0478		20	
100	55299-1078	44.00 (1.732)	None	
120	55299-1278	56.00 (2.205)		
140	55299-1478			

Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle Housing

54102
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 2.50mm (.098")
- Sizes 16, 20, 30, 40, 50, 60 and 70 circuits
- Locking feature provides secure mating
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Packaging: Embossed
Mates With: 53885
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled PPA, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Operating Temperature: -40 to +85°C

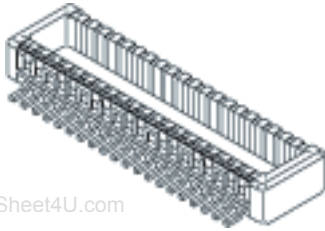
Circuits	Order No.	Carrier Tape Width	Lead-free
16	54102-0164	16.00 (.630)	Yes
20	54102-0204		
30	54102-0304	24.00 (.945)	
40	54102-0404		
50	54102-0504	32.00 (1.260)	
60	54102-0604		
70	54102-0704		

Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

53885/500334
SMT, Dual Row
Vertical Stacking



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Features and Benefits

- Stacking height: 2.50mm (.098")
- Sizes 16, 20, 30, 50, 60 and 70 circuits
- Locking feature provides secure mating
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Packaging: Embossed
Mates With: 54102
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel
Operating Temperature: -40 to +85°C

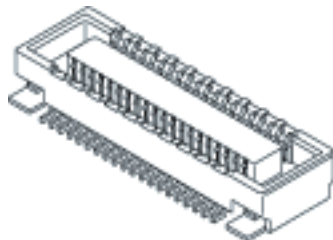
Circuits	Order No.	Lock Position	Carrier Tape Width	Lead-free
16	500334-0160	All	16.00 (.630)	Yes
20	500334-0201			
30	500334-0300			
40	53885-0408	3, 6, 9, 12, 15, 18	24.00 (.945)	
50	53885-0508	4, 10, 16, 22	32.00 (1.260)	
60	53885-0608	10, 21		
70	53885-0708	None		

Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle Housing

54150
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 2.50mm (.098")
- Sizes 50 to 80 circuits
- Locking feature provides secure mating
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Packaging: Embossed
Mates With: 53949
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

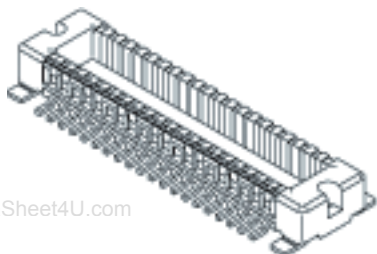
Physical

Housing: Black glass-filled PPA, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Solder Tab: Phosphor Bronze, Tin over Nickel plating
Operating Temperature: -40 to +85°C

Circuits	Order No.	Carrier Tape Width	Lead-free
50	54150-0578	32.00 (1.260)	Yes
60	54150-0678		
70	54150-0778		
80	54150-0878	44.00 (1.732)	

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

53949
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 2.50mm (.098")
- Sizes 50, 60, 70 and 80 circuits
- Locking feature provides secure mating
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Packaging: Embossed
Mates With: 54150
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Black glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel
Solder Tab: Phosphor Bronze, Tin over Nickel plating
Operating Temperature: -40 to +85°C

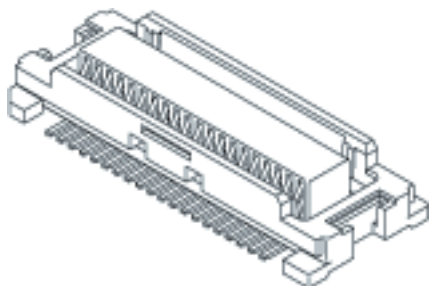
Circuits	Order No.	Lock Position	Carrier Tape Width	Lead-free
50	53949-0578	4, 10, 16, 22	32.00 (1.260)	Yes
60	53949-0678	None		
70	53949-0778			
80	53949-0808		44.00 (1.732)	

Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle

52991/54167
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking Heights: 3.0 and 4.0mm
- Sizes 20 to 80 circuits
- Locking feature provides secure mating
- High temperature housing
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Packaging: Embossed tape
Mates With: 53748 (H=3.0mm)
53916 (H=4.0mm)
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A
Contact Resistance: 53748—50 milliohms max.
53716—60 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Physical

Housing: White glass-filled LCP plastic, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Operating Temperature: -40 to +105°C

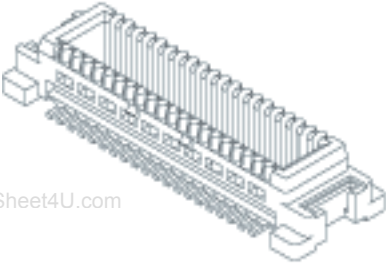
Circuits	Order No.		Carrier Tape Width	Lead-free
	White	Black		
20	52991-0208	54167-0208	16.00 (.630)	Yes
30	52991-0308	54167-0308	24.00 (.945)	
40	52991-0408	54167-0408		
50	52991-0508	54167-0508	32.00 (1.260)	
60	52991-0608	54167-0608		
70	52991-0708			
80	52991-0808	54167-0808		

Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

53748
SMT, Dual Row
Vertical Stacking



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Features and Benefits

- Stacking height: 3.0mm
- Sizes 20, 30, 40 and 70 circuits
- Locking feature provides secure mating
- High temperature housing
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Packaging: Embossed tape
Mates With: 52991/54167
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A
Contact Resistance: 50 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Physical

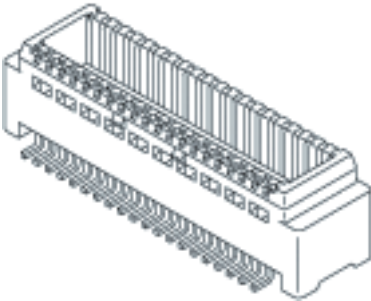
Housing: White glass-filled LCP plastic, UL 94V-0
Contact: Brass
Plating: Gold over Nickel
Operating Temperature: -40 to +105°C

Circuits	Order No.	Carrier Tape Width	Lead-free
20	53748-0208	16.00 (.630)	Yes
30	53748-0308	24.00 (.945)	
40	53748-0408		
70	53748-0708	44.00 (1.732)	

Note: Contact Molex for embossed tape specifications
Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

53916
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 4.0mm
- Locking feature provides secure mating
- High temperature housing
- Durable blade on beam contact interface
- Anti-flux design

Reference Information

Packaging: Embossed tape
Mates With: 52991, 54167
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 100 Megohms min.

Physical

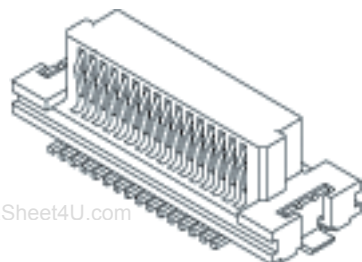
Housing: Black glass-filled LCP, UL 94V-0
Contact: Brass
Plating: Gold over Nickel
Operating Temperature: -40 to +105°C

Circuits	Order No.	Carrier Tape Width	Lead-free
20	53916-0208	24.00 (.945)	Yes

Note: Contact Molex for embossed tape specifications
Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.50mm (.020") Pitch SlimStack™ Board-to-Board Receptacle Housing

54230
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 5.50mm (.217")
- Sizes 50, 60 and 80 circuits
- Polarized design
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails
- Durable blade on beam contact interface
- Polarizing pegs assist placement

Reference Information

Packaging: Embossed
Mates With: 55055
Designed In: Millimeters

Electrical

Voltage: 60V
Current: 0.4A
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

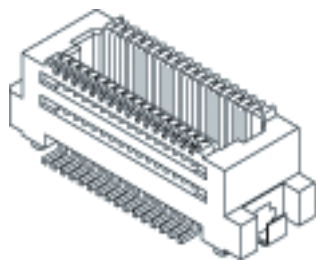
Physical

Housing: LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel
Solder Tab: Copper Alloy, Tin over Copper Plating
Operating Temperature: -40 to +85°C

Circuits	Order No.	Carrier Tape Width	Lead-free
50	54230-0578	32.00 (1.260)	Yes
60	54230-0678		
80	54230-0878	44.00 (1.732)	

0.50mm (.020") Pitch SlimStack™ Board-to-Board Plug

55055
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 5.50mm (.217")
- Sizes 50, 60 and 80 circuits
- Durable blade on beam contact interface
- Polarized design
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Packaging: Embossed
Mates With: 54230
Designed In: Millimeters

Electrical

Voltage: 60V
Current: 0.4A
Contact Resistance: 60 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical

Housing: LCP, UL 94V-0
Contact: Copper Alloy
Plating: Gold over Nickel
Fitting Nail: Copper Alloy, Tin over Nickel Plating
Operating Temperature: -40 to +85°C

Circuits	Order No.	Carrier Tape Width	Lead-free
50	55055-0578	32.00 (1.260)	Yes
60	55055-0678		
80	55055-0878	44.00 (1.732)	

0.635mm (.025") and 0.80mm (.031") Pitch

A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

Pitch	Series		Tradename	Description	Stacking Height
0.635mm (.025")	52760/52885		SlimStack™	Receptacle	5.00 and 10.00mm (.197 and .394")
	52837/52901			Receptacle	11.00 and 16.00mm (.433 and .630")
	53481/53625			Plug	7.00 and 13.00mm (.276 and .512")
	53551/53647			Plug	8.00 and 14.00mm (.315 and .551")
	53553/53627			Plug	10.00 and 16.00mm (.394 and .630")
	55091			Header	6.00 and 12.00mm (.236 and .472")
	53552/52649			Header	9.00 and 15.00mm (.354 and .591")
	55952			Header	20.00 (.787")
0.80mm (.031")	52465		MDC	Receptacle	4.50, 6.00 and 7.00mm (.177, .236 and .276")
	53307			Header	4.50 and 5.50mm (.177 and .217")
	53364			Header	6.00 and 7.00mm (.236 and .276")
	53353			Header	7.00 and 8.00mm (.276 and .315")
	53309			Header, Right Angle	5.65 and 6.65mm (.222 and .262")
	48210			Receptacle	3.00 (.118")
	48126		Plug	3.50 (.138")	

0.635mm (.025") Pitch SlimStack™ Board-to-Board Receptacle

52760/52885

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Stacking height: 6.0, 7.0, 8.0 and 10mm
- Sizes 20 to 240 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Metal solder tabs provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Packaging: Tube and embossed tape
 Mates With: 53467 (H=6.0mm)
 53481 (H=7.0mm)
 53551 (H=8.0mm)
 53553 (H=10.0mm)

Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 0.5A
 Contact Resistance:
 40 milliohms max. (H=6.0, 7.0mm)
 50 milliohms max. (H=8.0, 10.0mm)
 Dielectric Withstanding Voltage: 250V AC
 Insulation Resistance: 1000 Megohms min.

Physical

Housing: White glass-filled LCP, UL 94V-0
 Contact: Copper Alloy
 Plating: Gold over Nickel
 Operating Temperature: -55 to +85°C

Circuits	Order No.			Lead-free
	Tube	Tube with Cover	Embossed Tape with Cover	
20	52760-0279	52885-0275	52885-0274	Yes
40	52760-0479		52885-0474	
60	52760-0679	52885-0675	52885-0674	
80	52760-0879		52885-0874	
100	52760-1079	52885-1075	52885-1074	
120	52760-1279	52885-1275	52885-1274	

Circuits	Order No.			Lead-free
	Tube	Tube with Cover	Embossed Tape with Cover	
140	52760-1479	52885-1475	52885-1474	Yes
160	52760-1679	52885-1675	52885-1674	
180	52760-1879			
200	52760-2079			
240	52760-2479		52885-2474	

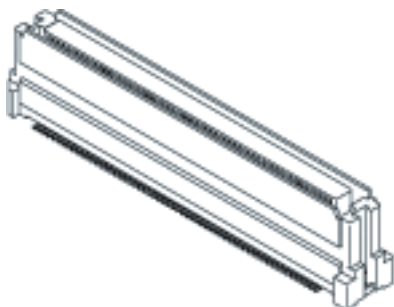
Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.635mm (.025") Pitch SlimStack™ Board-to-Board Receptacle

52837/52901

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Stacking height: 12.0 to 16.0mm
- Sizes 20 to 180 circuits
- Housing lock on 20 to 60 circuits
- Anti-flux design
- Metal solder tabs provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Packaging: Tube and embossed tape
 Mates With: 53467 (H=12.0mm)
 53481/53625 (H=13.0mm)
 53551/53647 (H=14.0mm)
 53553/53627 (H=16.0mm)

Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 0.5A
 Contact Resistance:
 60 milliohms max. (H=12.0, 13.0mm)
 70 milliohms max. (H=14.0, 16.0mm)
 Dielectric Withstanding Voltage: 250V AC
 Insulation Resistance: 1000 Megohms min.

Physical

Housing: White glass-filled LCP, UL 94V-0
 Contact: Phosphor Bronze
 Plating: Gold over Nickel
 Operating Temperature: -55 to +85°C

Circuits	Order No.			Lead-free
	Tube	Tube with Cover	Embossed Tape with Cover	
20	52837-0279		52901-0274	Yes
40	52837-0479		52901-0474	
60	52837-0679	52901-0675	52901-0674	
80	52837-0879	52901-0875	52901-0874	

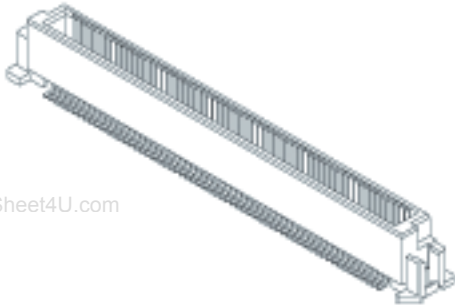
Circuits	Order No.			Lead-free
	Tube	Tube with Cover	Embossed Tape with Cover	
120	52837-1279	52901-1275	52901-1274	Yes
140	52837-1479	52901-1475	52901-1474	
160	52837-1679			
180	52837-1879			

Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.635mm (.025") Pitch SlimStack™ Board-to-Board Plug

53481/53625
SMT, Dual Row
Vertical Stacking



www.DataSheet4U.com

Features and Benefits

- Stacking height: 7.0 and 13.0mm
- Sizes 20 to 240 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Metal solder tabs provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Packaging: Tube and embossed tape
 Mates With: 52760/52885 (H=7.0mm)
 52837/52901 (H=13.0mm)
 Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 0.5A
 Contact Resistance: 40 milliohms max. (H=7.0mm)
 60 milliohms max. (H=13.0mm)
 Dielectric Withstanding Voltage: 250V AC
 Insulation Resistance: 1000 Megohms min.

Physical

Housing: White glass-filled LCP, UL 94V-0
 Contact: Copper Alloy
 Plating: Contact area—Gold
 Solder Tail area—Tin
 Operating Temperature: -55 to +85°C

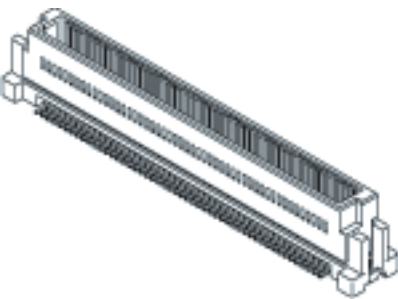
Circuits	Order No.			Lead-free
	Tube	Tube with Cover	Embossed Tape with Cover	
20	53481-0279			Yes
40	53481-0479		53625-0474	
60	53481-0679			
80	53481-0879	53625-0875	53625-0874	
100	53481-1079			
120	53481-1279		53625-1274	

Circuits	Order No.			Lead-free
	Tube	Tube with Cover	Embossed Tape with Cover	
140	53481-1479		53625-1474	Yes
160	53481-1679	53625-1675	53625-1674	
180	53481-1879			
200	53481-2079			
240	53481-2479		53625-2474	

Note: Contact Molex for embossed tape specifications
 Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.635mm (.025") Pitch SlimStack™ Board-to-Board Plug

53551/53647
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 8.0 and 14.0mm
- Sizes 20, 40, 60, 80, 100, 120 and 140 circuits
- Housing lock on 40 and 60 circuits
- Anti-flux design
- Metal solder tabs provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Packaging: Tube and embossed tape
 Mates With: 52760/52885 (H=8.0mm)
 52837/52901 (H=14.0mm)
 Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 0.5A
 Contact Resistance: 50 milliohms max. (H=8.0mm)
 70 milliohms max. (H=14.0mm)
 Dielectric Withstanding Voltage: 250V AC
 Insulation Resistance: 1000 Megohms min.

Physical

Housing: Brown glass-filled PPS, UL 94V-0
 Contact: Brass
 Plating: Gold over Nickel
 Operating Temperature: -55 to +85°C

Circuits	Order No.		Lead-free
	Tube	Embossed Tape with Cover	
20		53647-0274	Yes
40	53551-0479	53647-0474	
60	53551-0679	53647-0674	
80	53551-0879		

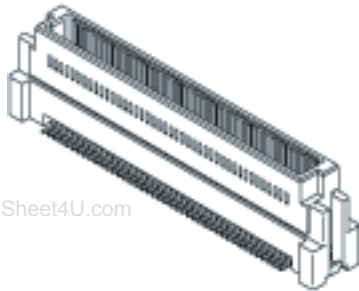
Circuits	Order No.		Lead-free
	Tube	Embossed Tape with Cover	
100	53551-1079		Yes
120	53551-1279	63647-1274	
140	53551-1479		

Note: Contact Molex for embossed tape specifications
 Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.635mm (.025") Pitch SlimStack™ Board-to-Board Plug

53553/53627

**SMT, Dual Row
Vertical Stacking**



Features and Benefits

- Stacking height: 10.0 and 16.0mm
- Sizes 40, 60 and 140 circuits
- Housing lock on 20 to 70 circuits
- Anti-flux design
- Metal solder tabs provide PCB hold down and strain relief for SMT tails
- Polarizing pegs assist placement

Reference Information

Packaging: Tube and embossed tape
 Mates With: 52760/52885 (H=10.0mm)
 52837/52901 (H=16.0mm)
 Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 0.5A
 Contact Resistance: 50 milliohms max. (H=10.0mm)
 70 milliohms max. (H=16.0mm)
 Dielectric Withstanding Voltage: 250V AC
 Insulation Resistance: 1000 Megohms min.

Physical

Housing: Brown glass-filled PPS, UL 94V-0
 Contact: Brass
 Plating: Gold over Nickel
 Operating Temperature: -55 to +85°C

Circuits	Order No.			Lead-free
	Tube	Tube with Cover	Embossed Tape with Cover	
20			53627-0274	Yes
40	53553-0479	53627-0475	53627-0474	
60	53553-0679	53627-0675	53627-0674	
80	53553-0879	53627-0875	53627-0874	
100	53553-1079	53627-1075	53627-1074	

Circuits	Order No.			Lead-free
	Tube	Tube with Cover	Embossed Tape with Cover	
120			53627-1275	Yes
140	53553-1479	53627-1475		
160	53553-1679	53627-1675		
180	53553-1879			
200	53553-2079			

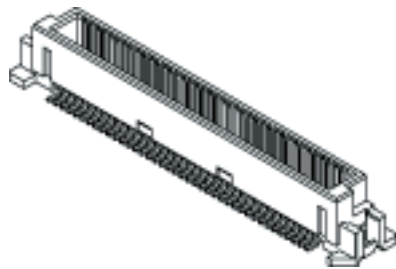
Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

0.635mm (.025") Pitch SlimStack™ Board-to-Board Header

55091

**SMT, Dual Row, Vertical Stacking
6.00 and 12.00mm (.236 and .472")
Stacking Heights**



Features and Benefits

- Stacking heights of 6.00 and 12.00mm (.236 and .472")
- Sizes 20 to 240 circuits
- Housing lock on 20 to 60 circuits
- Anti-flux design
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails
- Polarizing pegs assist placement onto PCB

Reference Information

Product Specification: PS-52760-015
 Packaging: Embossed tape on reel
 Mates With: 52760, 52837, 52885 and 52901
 Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 0.5A
 Contact Resistance: 40 milliohms max., 60 milliohms max.
 Dielectric Withstanding Voltage: 250V AC/1 min.
 Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 0.69N (0.16 lb)
 Unmating Force: 0.118N (0.027 lb)

Physical

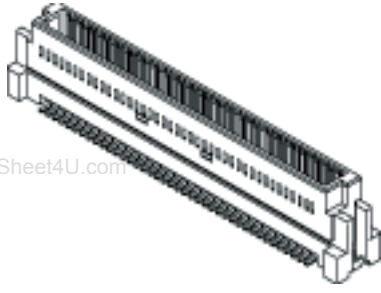
Housing: Black glass-filled LCP Liquid Crystal Polymer, UL 94V-0
 Contact: Copper Alloy
 Plating: Contact Area—Gold
 Solder Tail Area—Tin
 Underplating: Nickel
 Operating Temperature: -55 to +85°C

Circuits	Order No.			Lead-free
	Tube		Embossed Tape	
	Without Pick-and-Place Cover	With Pick-and-Place Cover		
20	55091-0279		55091-0274	Yes
40	55091-0479		55091-0474	
60	55091-0679		55091-0674	
80	55091-0879	55091-0875		
100	55091-1079	55091-1075		
120	55091-1279	55091-1275		

Circuits	Order No.			Lead-free
	Tube		Embossed Tape	
	Without Pick-and-Place Cover	With Pick-and-Place Cover		
140	55091-1479	55091-1475		Yes
160	55091-1679	55091-1675	55091-1674	
180	55091-1879	55091-1875		
200	55091-2079	55091-2075		
240	55091-2479	55091-2475		

0.635mm (.025") Pitch SlimStack™ Board-to-Board Header

53552/53649
SMT, Dual Row, Vertical Stacking
9.00 and 15.00mm (.354 and .591")
Stacking Heights



www.DataSheet4U.com

- Features and Benefits**
- Stacking heights of 9.00 and 15.00mm (.354 and .591")
 - Anti-flux design
 - Metal solder tabs provide PCB hold-down and strain relief for SMT tails
 - Polarizing pegs assist placement onto PCB

Reference Information
Product Specification: PS-52760-015
Packaging: Embossed tape on reel
Mates With: 52760, 52837, 52885 and 52901
Designed In: Millimeters

Electrical
Voltage: 100V
Current: 0.5A
Contact Resistance: 40 milliohms max., 60 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 1000 Megohms min.

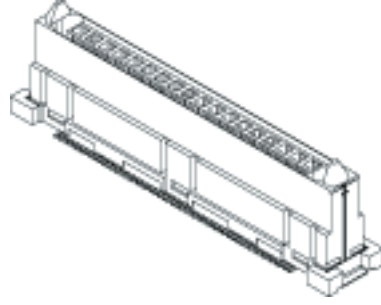
Mechanical
Mating Force: 0.69N (0.16 lb)
Unmating Force: 0.118N (0.027 lb)

Physical
Housing: Brown glass-filled PPS Polyphenylene Sulfide, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold
Solder Tail Area—Tin
Underplating: Nickel
Operating Temperature: -55 to +85°C

Circuits	Order No.			Lead-free
	Tube Packaging		Embossed Tape Packaging	
	Without Pick-and-Place Cover	With Pick-and-Place Cover		
40			53649-0474	Yes
80			53649-0874	
100	53552-1079			
140	53552-1479	53649-1475		
160	53552-1679			

0.635mm (.025") Pitch SlimStack™ Board-to-Board Header

55952
Shielded, SMT, Dual Row
Vertical Stacking
20.00mm (.787") Stacking Height



- Features and Benefits**
- Locating pegs for accurate placement on PCB
 - Full shield provides EMI/RFI protection

Reference Information
Product Specification: PS-51411-012
Packaging: Tray
Mates With: 51441-1711 and 51441-1712
Designed In: Millimeters

Electrical
Voltage: 50V
Current: 0.4A
Contact Resistance: 80 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Physical
Housing: Black glass-filled LCP Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Gold
Solder Tail Area—Tin
Underplating: Nickel
Operating Temperature: -55 to +85°C

Circuits	Order No.	Lead-free
110	55952-1731	Yes

Tin-Plated SMT Board-to-Board Connectors

Features and Benefits

The following two series of board-to-board connectors are available in Tin-plating and smaller circuit sizes for consumer and other micro applications.

Our 0.80mm (.031") pitch series is available with three different size vertical headers for stacking flexibility, along with a right-angle header for micro daughterboard applications.

PBT PLASTICS—AN INTRODUCTION

Molex connectors are often made of either nylon or polyester. The polyester used is polybutylene terephthalate (PBT), a thermoplastic crystalline polymer. PBT offers a number of special performance characteristics that have led to recent widespread applications for connectors and other components used in the electrical and electronics industries.

How to Use the 52588 Floating Receptacle

Molex's 0.80mm (.031") pitch floating-type receptacle provides up to 0.30mm of side-to-side or front-back tolerance in order to help guide receptacles and header together. The system is ideally suited for robotic assembly, but also makes manual assembly easier.

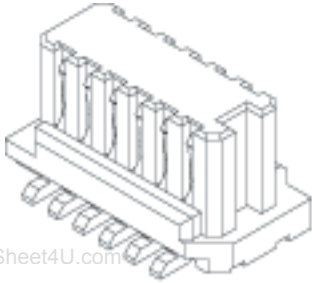
Note: In applications requiring two or more receptacles on the same PCB, the 52588 can be used with another 52588 version or the standard 52465 receptacle.

Features and Benefits

- High resistance to trichloroethane and other solvents and oils
- High formability with less shrinkage than most other crystalline polymers. The result is greater dimensional accuracy.
- Excellent rigidity and mechanical strength
- High heat stability—the addition of glass fibers and other reinforcing materials can raise the heat resistance to over 200°C. Even without reinforcing agents, PBT components can withstand temperatures of up to 150°C without deformation.
- Good electrical properties
- Noncombustibility—flame retardants may be added without seriously impairing performance, and special treatment can then prevent retardant bleedout. This is a phenomenon that can lead to corrosion of metal parts in the vicinity.

0.80mm (.031") Pitch Board-to-Board Receptacle

52465
Dual Row
SMT



www.DataSheet4U.com

Features and Benefits

- Stacking Heights: 4.5, 6.0 and 7.0mm (5.65mm right angle mated height)
- Sizes 10 to 40 circuits

Reference Information

Packaging: Embossed tape
 Mates With: 53307 (H=4.5mm)
 53309 (H=5.65mm)
 53364 (H=6.0mm)
 53353 (H=7.0mm)
 Designed In: Millimeters

Electrical

Voltage: 50V
 Current: 0.5A
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 500V AC/1 min.
 Insulation Resistance: 100 Megohms min.

Physical

Housing: PPA, UL 94V-0
 Contact: Phosphor Bronze
 Plating: Tin
 Operating Temperature: -20 to +105°C

Circuits	Order No.	Carrier Tape Width	Lead-free
10	52465-1071	16.00 (.630)	Yes
12	52465-1271		
14	52465-1471		
16	52465-1671		
18	52465-1871		
20	52465-2071	24.00 (.945)	
22	52465-2271		
24	52465-2471		

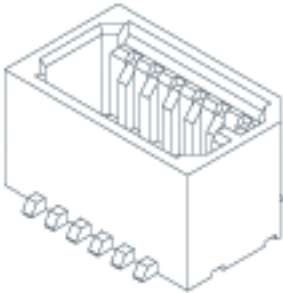
Circuits	Order No.	Carrier Tape Width	Lead-free
26	52465-2671	24.00 (.945)	Yes
28	52465-2871		
30	52465-3071		
32	52465-3271		
34	52465-3471		
36	52465-3671		
38	52465-3871	32.00 (1.259)	
40	52465-4071		

Note: Contact Molex for embossed tape specifications
 Note: When more than one connector is needed on same board, use with 52588 version

www.molex.com/customer.html?seriesNumber=52465

0.80mm (.031") Pitch Board-to-Board Header

53307
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking height: 4.5 and 5.5mm
- Sizes 10 to 40 circuits

Reference Information

Packaging: Embossed tape
 Mates With: 52465 (4.5mm)
 52588 (5.5mm)
 Designed In: Millimeters

Electrical

Voltage: 50V
 Current: 0.5A
 Contact Resistance: 52588—40 milliohms max.
 52465—20 milliohms max.
 Dielectric Withstanding Voltage: 500V AC/1 min.
 Insulation Resistance: 100 Megohms min.

Physical

Housing: PPS, UL 94V-0
 Contact: Phosphor Bronze
 Plating: Tin
 Operating Temperature: -20 to +105°C

Circuits	Order No.	Carrier Tape Width	Lead-free
10	53307-1071	16.00 (.630)	Yes
12	53307-1271		
14	53307-1471		
16	53307-1671		
18	53307-1871		
20	53307-2071	24.00 (.945)	
22	53307-2271		

Circuits	Order No.	Carrier Tape Width	Lead-free
24	53307-2471	24.00 (.945)	Yes
26	53307-2671		
28	53307-2871		
30	53307-3071		
34	53307-3471		
36	53307-3671		
40	53307-4071	32.00 (1.259)	

Note: Contact Molex for embossed tape specifications

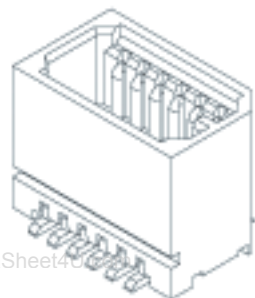
www.molex.com/customer.html?seriesNumber=53307



www.DataSheet4U.com
 MX07 A-23

0.80mm (.031") Pitch Board-to-Board Header

53364
SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking height: 6.0 and 7.0mm
- Sizes 10 to 40 circuits

Reference Information

Packaging: Embossed tape
Mates With: 52465 (6.0mm)
52588 (7.0mm)
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A
Contact Resistance: 52588—40 milliohms max.
52465—20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Operating Temperature: -20 to +105°C

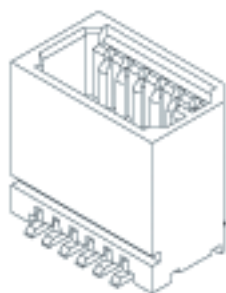
Circuits	Order No.	Carrier Tape Width	Lead-free
10	53364-1071	16.0 (.629)	Yes
12	53364-1271		
20	53364-2071	24.00 (.944)	
28	53364-2871		
30	53364-3071		
36	53364-3671		
40	53364-4071	32.00 (1.259)	

Note: Contact Molex for embossed tape specifications

www.molex.com/customer.html?seriesNumber=53364

0.80mm (.031") Pitch Board-to-Board Header

53353
SMT, Dual Row Vertical Stacking



Features and Benefits

- Stacking height: 7.0 and 8.0mm
- Sizes 10, 16 and 28 circuits

Reference Information

Packaging: Embossed tape
Mates With: 52465 (7.0mm)
52588 (8.0mm)
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A
Contact Resistance: 52588—40 milliohms max.
52465—20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

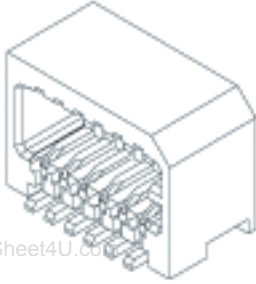
Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Operating Temperature: -20 to +105°C

Circuits	Order No.	Carrier Tape Width	Lead-free
10	53353-1071	16.00 (.629)	Yes
16	53353-1671		
18	53353-1871		
20	53353-2071	24.00 (.944)	
28	53353-2871		
36	53353-3671		

Note: Contact Molex for embossed tape specifications

0.80mm (.031") Pitch Board-to-Board Header

53309
SMT, Dual Row
Right Angle



www.DataSheet4U.com

Features and Benefits

- Mated height: 5.65 and 6.65mm
- Sizes 10 to 40 circuits

Reference Information

Packaging: Embossed tape
Mates With: 52465 (5.65mm)
52588 (6.65mm)
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 0.5A
Contact Resistance: 52588—40 milliohms max.
52465—20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PPS, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Operating Temperature: -20 to +105°C

Circuits	Order No.	Carrier Tape Width	Lead-free
10	53309-1070	16.00 (.630)	Yes
12	53309-1270		
14	53309-1470		
16	53309-1670		
18	53309-1870		
20	53309-2070		
22	53309-2270	24.00 (.945)	
24	53309-2470		

Note: Contact Molex for embossed tape specifications

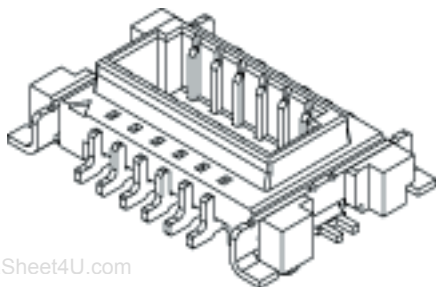
Circuits	Order No.	Carrier Tape Width	Lead-free
26	53309-2670	24.00 (.945)	Yes
28	53309-2870		
30	53309-3070		
32	53309-3270		
34	53309-3470		
36	53309-3670		
38	53309-3870		
40	53309-4070		

A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

0.80mm (.031") Pitch MDC Board-to-Board Receptacle

48210
Vertical



Features and Benefits

- Stacking height of 3.00mm (.118")
- Metal solder tabs provide PCB hold-down and relief for surface mount tails
- Locking feature increases secure mating
- Positioning pegs assist placement

Reference Information

Product Specification: PS-48126-001
Packaging: Tape on reel
Mates With: 48126
Designed In: Millimeters

Electrical

Voltage: 50V DC
Current: 0.5A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 0.69N
Unmating Force: 0.12N
Durability: 50 cycles

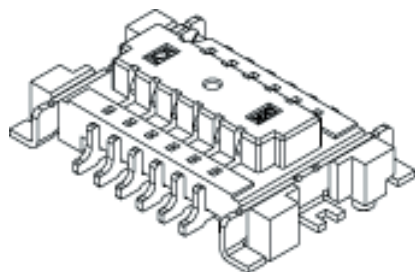
Physical

Housing: High-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Tin
Solder Tail Area—Tin
Underplating: 50µ" Nickel
Operating Temperature: -40 to +85°C

Circuits	Order No.	Mates With	Lead-free
12	48210-1201	48126-1201	Yes
30	48210-3001	48126-3001	

0.80mm (.031") Pitch MDC Board-to-Board Plug

48126
Vertical



Features and Benefits

- 3.50mm (.138") stack height
- Metal solder tabs provide secure hold down to PCB and relief for surface mount tails
- Locking feature to ensure mating
- Plastic pegs ensure correct placement on PCB
- Pick-and-place cover allows for automated placement onto PCB

Reference Information

Product Specification: PS-48126-001
Packaging: Tape on reel
Designed In: Millimeters

Electrical

Voltage: 50V DC
Current: 0.5A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Mating Force: 0.69N
Unmating Force: 0.12N
Durability: 50 cycles

Physical




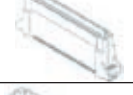




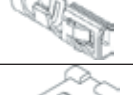
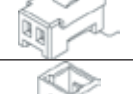

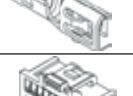
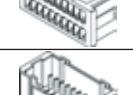
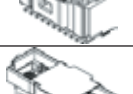
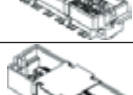
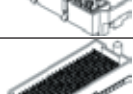
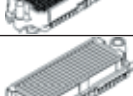

Housing: Glass-filled high-temperature thermoplastic, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—Tin
Solder Tail Area—Tin
Underplating: 50µ" Nickel
Operating Temperature: -40 +85°C

Circuits	Order No.	Mates With	Lead-free
12	48126-1201	48168-1201	Yes
30	48126-3001	48168-3001	

1.00mm (.039") and 1.20 x 2.00mm (.047 x .079") Pitch

A

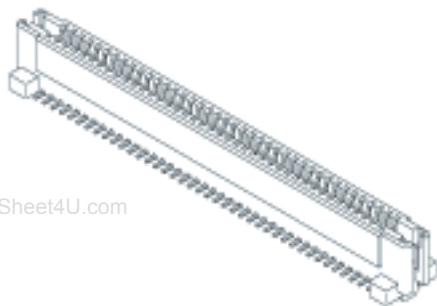
0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

Pitch	Series		Tradename	Description		
1.00mm (.039")	52584		SlimStack™	Receptacle		
	53395			Plug		
	52602			Receptacle		
	53408			Plug		
	71436		Mezzanine IEEE 1386	Plug		
	71439			Receptacle		
	71741		Mezzanine	Plug		
	71742			Receptacle		
	501335		iLock™	Female Crimp Terminal		
	501330			Housing		
	501331			Header		
	501193			Female Crimp Terminal		
	501189			Housing		
	50190			Header		
	1.20 x 2.00mm (.047 x .079")	75003			Plateau HS Mezz™	Plug
		75005				Receptacle
45830			HD Mezz™	Plug		
45802				Receptacle		

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1.00mm (.039") Pitch SlimStack™ Board-to-Board Receptacle

52584
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking heights: 8.0 and 18.0mm
- Sizes 20 to 140 circuits
- Leaf-style design protects pins
- Anti-flux design
- Low insertion force
- Polarization pegs assist placement

Reference Information

Packaging: Tube
 UL File No.: E29179
 Mates With: 53395 (H=8.0mm)
 53408 (H=18.0mm)
 Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 0.5A
 Contact Resistance:
 40 milliohms max. (H=8.0, 9.0, 10.0mm)
 70 milliohms max. (H=18.0mm)
 Dielectric Withstanding Voltage: 200V AC
 Insulation Resistance: 1000 Megohms min.

Physical

Housing: White glass-filled LCP, UL 94V-0
 Contact: Phosphor Bronze
 Plating: Gold (0.25mm min.) over Nickel
 Operating Temperature: -55 to +85°C

Circuits	Order No.	Lead-free
20	52584-0279	Yes
34	52584-0379	
50	52584-0579	
60	52584-0679	
66	52584-6679	

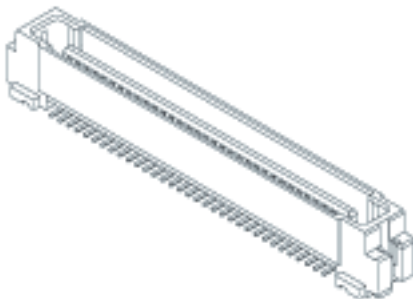
Circuits	Order No.	Lead-free
80	52584-0879	Yes
100	52584-1079	
120	52584-1279	
140	52584-1479	

Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

1.00mm (.039") Pitch SlimStack™ Board-to-Board Plug

53395
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking heights: 8.0mm
- Sizes 20 to 140 circuits
- Leaf-style design protects pins
- Anti-flux design
- Low insertion force
- Polarization pegs assist placement

Reference Information

Packaging: Tube
 Mates With: 52584
 Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 0.5A
 Contact Resistance: 40 milliohms max.
 Dielectric Withstanding Voltage: 200V AC
 Insulation Resistance: 1000 Megohms min.

Physical

Housing: White glass-filled LCP, UL 94V-0
 Contact: Phosphor Bronze
 Plating: Gold (0.25µm) over Nickel
 Operating Temperature: -55 to +85°C

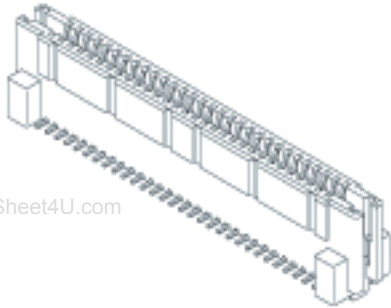
Circuits	Order No.	Lead-free
20	53395-0279	Yes
34	53395-0379	
66	53395-6679	
100	53395-1079	
140	53395-1479	

Note: Contact Molex for embossed tape specifications

Note: Use only one connector per daughterboard in order to insure proper mating alignment

1.00mm (.039") Pitch SlimStack™ Board-to-Board Receptacle

52602
SMT, Dual Row
Vertical Stacking



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Features and Benefits

- Stacking heights: 20.0mm
- Sizes 24 to 140 circuits
- Leaf-style design protects pins
- Anti-flux design
- Low insertion force
- Polarization pegs assist placement

Reference Information

Packaging: Tube
Mates With: 53397 and 53408
Designed In: Millimeters

Electrical

Voltage: 100V
Current: 0.5A
Contact Resistance: 70 milliohms max.
Dielectric Withstanding Voltage: 200V AC
Insulation Resistance: 1000 Megohms min.

Physical

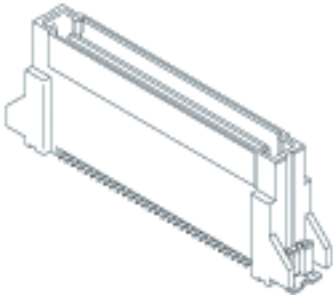
Housing: White glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold (0.25µm min.) over Nickel
Operating Temperature: -55 to +85°C

Circuits	Order No.	Lead-free
24	52602-0279	Yes
50	52602-0579	
60	52602-0679	
120	52602-1279	
140	52602-1479	

Note: Contact Molex for embossed tape specifications
Note: Use only one connector per daughterboard in order to insure proper mating alignment

1.00mm (.039") Pitch SlimStack™ Board-to-Board Plug

53408
SMT, Dual Row
Vertical Stacking



Features and Benefits

- Stacking heights: 18.0, 20.0mm
- Sizes 24 to 140 circuits
- Leaf-style design protects pins
- Antiflux design
- Low insertion force
- Polarization pegs assist placement

Reference Information

Packaging: Tube
Mates With: 52584 (H=18.0mm)
52602 (H=20.0mm)
Designed In: Millimeters

Electrical

Voltage: 100V
Current: 0.5A
Contact Resistance: 70 milliohms max.
Dielectric Withstanding Voltage: 200V AC
Insulation Resistance: 1000 Megohms min.

Physical

Housing: White glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold (0.25µm) over Nickel
Operating Temperature: -55 to +85°C

Circuits	Order No.	Lead-free
24	53408-0279	Yes
50	53408-0579	
60	53408-0679	
80	53408-0879	
100	53408-1079	
120	53408-1279	
140	53408-1479	

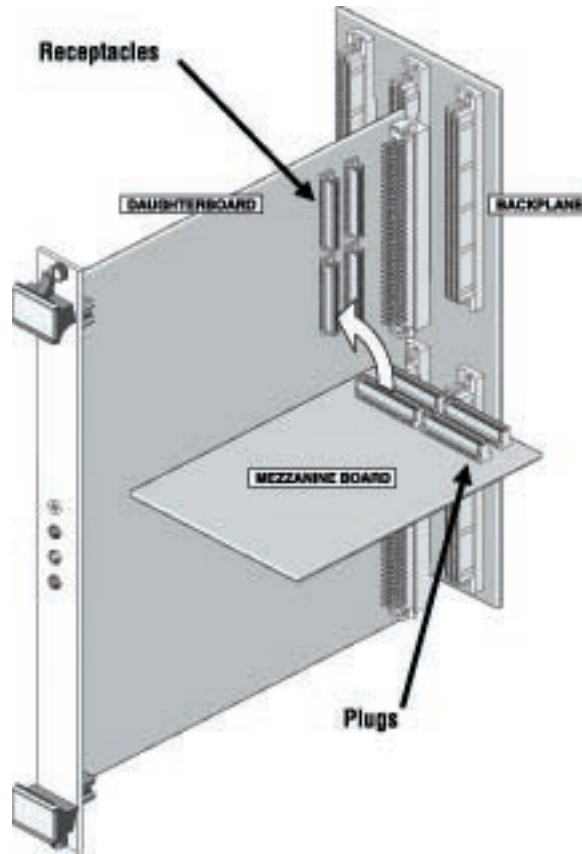
Note: Contact Molex for embossed tape specifications
Note: Use only one connector per daughterboard in order to insure proper mating alignment

1.00mm (.039") Pitch Mezzanine IEEE 1386 SMT Stacking Board-to-Board Connectors

The IEEE P1386 Standard contains the details for adding standardized general option, PCI and S-bus mezzanine cards to VMEbus and Multibus host boards. There are also many LAN, WAN, telecommunications, PC and workstation users who want a standardized mezzanine scheme and see the IEEE P1386 as the best approach.

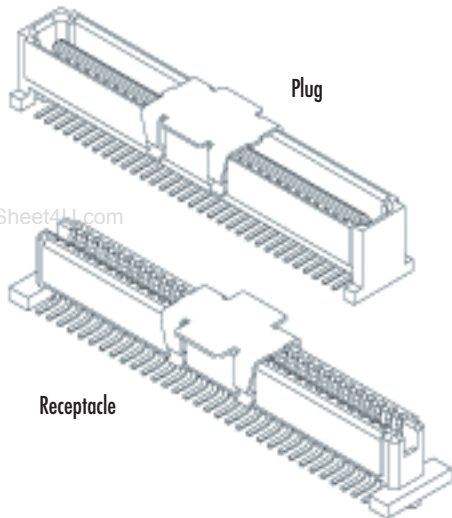
Molex's fully-shrouded leaf-style design minimizes the chance of damaging plug contacts, and our receptacle contacts feature a low mating force, reducing PC board stress. Gold-over-Nickel contact plating enhances long-term reliability and UL 94V-0 LCP housings withstand SMT reflow processes. Excellent tolerance absorption allows the connector to be used in combinations of 1-4 mated pairs for up to 256 circuits.

As the need for faster signal speeds increases, the need for better performance and signal integrity performance of connectors also increases. The 1.00mm (.039") mezzanine connectors from Molex provide the excellent performance required by today's high-speed systems. For example, Molex 1.00mm (.039") mezzanine connectors can be used in a 5.0 Gbps application by using grounds between each differential pair (G-S-S-G), resulting in a differential impedance of 100 ohms \pm 10% and 2.23% NEXT at a 50psec (10/90%) risetime. At -3dB, the insertion loss for the Molex 1.00mm (.039") mezzanine connectors is 7.3GHz. At -10dB, the differential return loss is 6.2GHz. These mezzanine connectors can comfortably handle the higher-speed data rates required for PCI Express as the 1X standard moves toward 4.0 to 5.0 Gbps.



1.00mm (.039") Mezzanine IEEE 1386 Board-to-Board Plug/Receptacle

71436/71439
Dual Row, SMT
Vertical Stacking



Features and Benefits

- Mated heights: 8, 9, 10, 11, 12, 13, 14 and 15mm
- Size 64 circuits
- Leaf-style design protects pins
- Low insertion force
- For use in combinations of 1 to 4 mated pairs
- High-temperature LCP housing for use with lead-free processing temps

Reference Information

Product Specification: PS-71436-9999
Packaging: Tube or tape and reel
UL File No.: E29179
Designed In: Millimeters

Electrical

Voltage: 100V
Current: 1.0A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 250V
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 0.4kgf min.
Mating Force: 50g max. per contact
Unmating Force: 25g min. per contact

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Phosphor Bronze
Plating: 30µ" Gold min.
Operating Temperature: -55 to +85°C

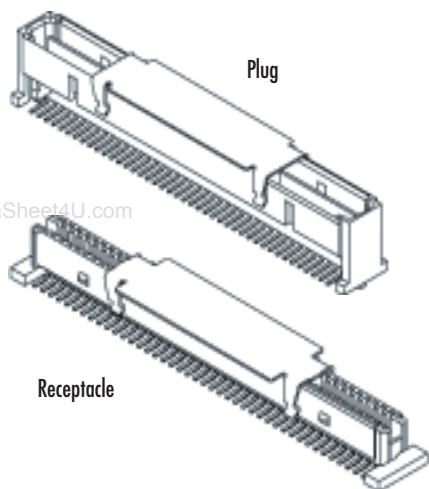
Circuits	Mated Stack Height	Pegs	Packaging	Order No.		Lead-free
				Plug	Receptacle	
64	8.00mm (.315")	Yes	Tape and Reel	71436-0464	71439-0464	Yes
			Tube	71436-0164	71439-0164	
		No	Tape and Reel	71436-0864	71439-0864	
			Tube	71436-0564	Contact Molex	
	9.00mm (.354")	Yes	Tape and Reel	71436-1464	71439-0464	
			Tube	71436-1164	71439-0164	
		No	Tape and Reel	71436-1864	71439-0864	
			Tube	71436-1564	Contact Molex	
	10.00mm (.394")	Yes	Tape and Reel	71436-2464	71439-0464	
			Tube	71436-2164	71439-0164	
		No	Tape and Reel	71436-2864	71439-0864	
			Tube	71436-2564	Contact Molex	
	11.00mm (.433")	Yes	Tape and Reel	71436-1464	71439-1464	
			Tube	71436-1164	71439-1164	
		No	Tape and Reel	71436-1864	71439-1864	
			Tube	71436-1564	71439-1564	
	12.00mm (.472")	Yes	Tape and Reel	71436-2464	71439-1464	
			Tube	71436-2164	71439-1164	
		No	Tape and Reel	71436-2864	71439-1864	
			Tube	71436-2564	71439-1564	
	13.00mm (.512")	Yes	Tape and Reel	71436-2464	71439-2464	
			Tube	71436-2164	71439-2164	
		No	Tape and Reel	71436-2864	71439-2864	
			Tube	71436-2564	Contact Molex	
14.00mm (.551")	Yes	Tape and Reel	71436-1464	71439-3464		
		Tube	71436-1164	71439-3164		
	No	Tape and Reel	71436-1864	71439-3864		
		Tube	71436-1564	71439-3564		
15.00mm (.591")	Yes	Tape and Reel	71436-2464	71439-3464		
		Tube	71436-2164	71439-3164		
	No	Tape and Reel	71436-2864	71439-3864		
		Tube	71436-2564	71439-3564		

Note: These order numbers are the recommended plug and receptacle combinations for mated stack heights per EIA standard 700 AAAB. Per EIA standard, board stack height measured from facing surfaces of parallel circuit boards includes solder thickness allowance of 0.1 mm (.004") per side.

1.00mm (.039") Mezzanine Board-to-Board Plug/Receptacle

71741/71742

**Dual Row, SMT
Vertical Stacking**



Features and Benefits

- Mated heights: 8, 10, 12, 13 and 15mm
- Leaf-style design protects pins
- Low insertion force
- For use in combinations of 1 to 4 mated pairs
- High-temperature LCP housing for use with lead-free processing temps

Reference Information

Product Specification: PS-71741-9999
 Packaging: Tube or tape and reel
 UL File No.: E29179
 Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 1.0A
 Contact Resistance: 40 milliohms max.
 Dielectric Withstanding Voltage: 250V
 Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 0.4kgf min.
 Mating Force: 50g max.
 Unmating Force: 25g min.

Physical

Housing: Glass-filled LCP, UL 94V-0
 Contact: Phosphor Bronze
 Plating: 30µ" and 10µ" Gold min.
 Operating Temperature: -55 to +85°C

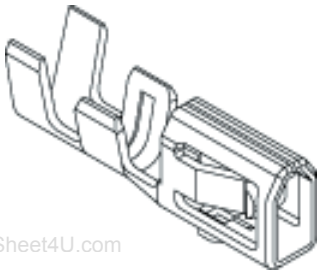
Circuits	Mated Stack Height	Pegs	Packaging	Order No.		Lead-free
				Plug	Receptacle	
84	8.00mm (.315")	Yes	Tape and Reel	71741-2011	71742-0003* or 71742-0006	Yes
			Tube	Contact Molex	71742-0004	
		No	Tape and Reel	71741-2002	71742-0001* or 71742-0005	
			Tube	Contact Molex	Contact Molex	
	10.00mm (.394")	Yes	Tape and Reel	71741-0002* or 71741-0004	71742-0003* or 71742-0006	
			Tube	71741-0001*	71742-0004	
		No	Tape and Reel	71741-0003	71742-0001* or 71742-0005	
			Tube	Contact Molex	Contact Molex	
	12.00mm (.472")	Yes	Tape and Reel	71741-0002* or 71741-0004	71742-2001* or 71742-2003	
			Tube	71741-0002* or 71741-0004	71742-2002*	
		No	Tape and Reel	Contact Molex	Contact Molex	
			Tube	Contact Molex	Contact Molex	
	13.00mm (.512")	Yes	Tape and Reel	71741-2001	71742-3003	
			Tube	Contact Molex	Contact Molex	
		No	Tape and Reel	71741-2002	71742-3001	
			Tube	Contact Molex	Contact Molex	
	15.00mm (.591")	Yes	Tape and Reel	71741-0002* or 71741-0004	71742-3003	
			Tube	71741-0001*	Contact Molex	
		No	Tape and Reel	71741-0003	71742-3001	
			Tube	Contact Molex	Contact Molex	

Note: These order numbers are the recommended plug and receptacle combinations for mated stack heights per EIA standard 700 AAAB. Per EIA standard, board stack height measured from facing surfaces of parallel circuit boards includes solder thickness allowance of 0.1mm (.004") per side.

*.25µmm (10µ") Gold plating

1.00mm (.039") Pitch iLock™ Wire-to-Board Crimp Terminal

501334
For Single Row Housings



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Order No.	Packaging	Lead-free
501334-0000	Reel	Yes
501334-0100	Bag	

Features and Benefits

- Box-shaped design provides 2 points of contact for secure electrical connection

Reference Information
 Product Specification: PS-501331-001
 Use With: 501330
 Designed In: Millimeters

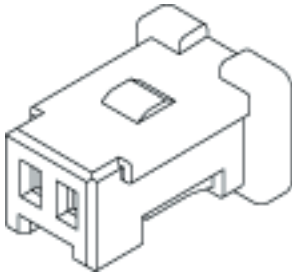
Electrical
 Voltage: 50V
 Current: 1.0A max.

Physical
 Contact: Phosphor Bronze
 Plating: Tin
 Underplating: Nickel
 Wire Size: 28 to 32 AWG
 Insulation Diameter: 0.80mm (.031") max.
 Wire Strip Length: 1.00 to 1.30mm (.039 to .051")

www.molex.com/customer.html?seriesNumber=501334

1.00mm (.039") Pitch iLock™ Wire-to-Board Housing

501330
Single Row
Positive and Friction Lock



Features and Benefits

- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information
 Product Specification: PS-501331-001
 Packaging: Bag
 Mates With: 501331
 Use With: 501334
 Designed In: Millimeters

Electrical
 Voltage: 50V
 Current: 1.0A max.
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 250V AC
 Insulation Resistance: 100 Megohms min.

Physical
 Housing: White Polyamide (Nylon 6/6), UL 94V-0
 Operating Temperature: -40 to +85°C

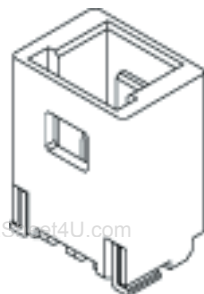
Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
2	501330-0200		Yes
3	501330-0300		
4	501330-0400		
5	501330-0500		
6		501330-0600	
7		501330-0700	
8		501330-0800	

Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
9		501330-0900	Yes
10		501330-1000	
11		501330-1100	
12		501330-1200	
13		501330-1300	
14		501330-1400	
15		501330-1500	



1.00mm (.039") Pitch iLock™ Wire-to-Board Header

501331
SMT, Single Row
Positive and Friction Lock



Features and Benefits

- Positive lock on 6-15 circuits; friction lock on 2-5 circuits
- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information

Product Specification: PS-501331-001
Packaging: Embossed tape
Mates With: 501330
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 1.0A max.
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance: 100 Megohms min.

Physical

Housing: 2-5 circuits—white nylon 4/6, UL 94V-0
6-15 circuits—white 6T nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Underplating: Nickel
Operating Temperature: -40 to +85°C

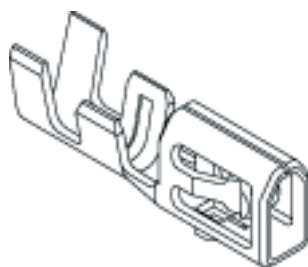
Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
2		501331-0207	Yes
3		501331-0307	
4		501331-0407	
5		501331-0507	
6	501331-0607		
7	501331-0707		
8	501331-0807		

Circuits	Order No.		Lead-free
	Positive Lock	Friction Lock	
9	501331-0907		Yes
10	501331-1007		
11	501331-1107		
12	501331-1207		
13	501331-1307		
14	501331-1407		
15	501331-1507		

www.molex.com/customer.html?seriesNumber=501331

1.00mm (.039") Pitch iLock™ Wire-to-Board Crimp Terminal

501193
For Dual Row
Housings



Features and Benefits

- Box-shaped design provides 2 points of contact for secure electrical connection

Reference Information

Product Specification: PS-501190-001 and PS-501190-002
Packaging: Reel
Use With: 501189
Designed In: Millimeters

Electrical

Voltage: 50V
Current: 1.0A max.

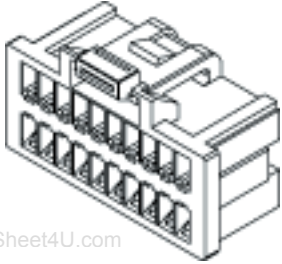
Physical

Contact: Phosphor Bronze
Plating: Gold
Underplating: Nickel
Wire Size: 28 to 32 AWG
Insulation Diameter: 0.80mm (.031") max.
Wire Strip Length: 1.00 to 1.30mm (.039 to .051")

Order No.	Lead-free
501193-0000	Yes

1.00mm (.039") Pitch iLock™ Wire-to-Board Housing

501189
Dual Row



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Features and Benefits

- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information

Product Specification: PS-501190-001; PS-501190-002
 Packaging: Bag
 Mates With: 501190
 Use With: 501193
 Designed In: Millimeters

Electrical

Voltage: 50V
 Current: 1.0A max.
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 250V AC
 Insulation Resistance: 100 Megohms min.

Physical

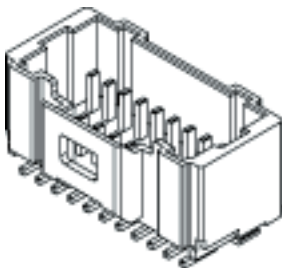
Housing: White or gray Polyamide (nylon), UL 94V-0
 Operating Temperature: -40 to +85°C

Circuits	Order No.		Lead-free
	Positive Lock	Side Friction Lock	
20	501189-2010	501189-2021	Yes
30	501189-3010	501189-2031	
40	501189-4010	501189-2041	
50	501189-5010	501189-2051	

www.molex.com/customer.html?seriesNumber=501189

1.00mm (.039") Pitch iLock™ Wire-to-Board Header

501190
Dual Row, SMT



Features and Benefits

- Inner positive lock provides space savings and latch protection
- Molded guides provide polarization and mating assistance

Reference Information

Product Specification: PS-501190-001 and PS-501190-002
 Packaging: Embossed tape
 Mates With: 501189
 Designed In: Millimeters

Electrical

Voltage: 50V
 Current: 1.0A max.
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 250V AC
 Insulation Resistance: 100 Megohms min.

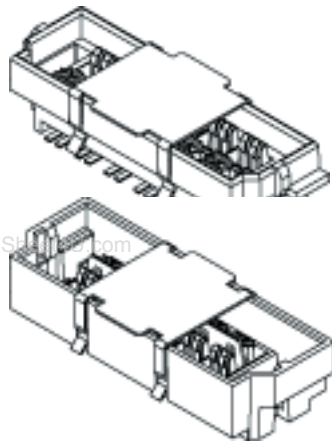
Physical

Housing: Beige Polyamide (nylon), UL 94V-0
 Plating: Contact—Gold; Solder Tail—Tin
 Operating Temperature: -40 to +85°C

Circuits	Order No.		Lead-free
	With Pick-and-Place Cover Tape	Without Pick-and-Place Cover Tape	
20	501990-2017	501990-2027	Yes
30	501990-3017	501990-3027	
40	501990-4017	501990-4027	
50	501990-5017	501990-5027	

1.20mm (.047") Pitch Plateau HS Mezz™ High Speed Mezzanine Connectors

75003/75005 Plug, Receptacle



Features and Benefits

- Metal-plated plastic housing provides shielding for very low crosstalk and signal speeds in excess of 10 Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Multiple stack heights from 10.00 to 25.00mm (.394 to .984") to meet nearly every parallel board to board requirement
- SMT tails for reflow processing and to minimize via effects on signal clarity
- Contacts on 1.20mm (.047") centerline pitch arranged in isolated differential pairs on 3.50mm (.138") pitch for isolated high-speed signaling
- RoHS compliant

Reference Information

Product Specification: PS-75003
 Packaging: Tape and Reel or Tube
 UL File No.: E29179
 CSA File No.: LR19980

Electrical

Voltage: 30V DC
 Current: 1.5A max.
 Contact Resistance: 25 milliohms max.
 Dielectric Withstanding Voltage: 500V
 Insulation Resistance: 1,000 Megohms min.
 Impedance: 100 ± 10 ohms at 50psec risetime (differential)

Mechanical

Mating Force: 2.0N (.45lb) max. per circuit
 Unmating Force: 0.9N (.20lb) min. per circuit
 Durability: 100 cycles

Physical

Housing: Liquid Crystal Polymer
 Contact: Copper Alloy
 Plating: Contact Area—0.76mm (30μ") Select Gold
 Solder Tail Area—Tin
 Underplating: 3.81mm (150μ") min. Tin over
 1.27mm (50μ") min. Nickel overall
 Operating Temperature: -20 to +85°C

Plug

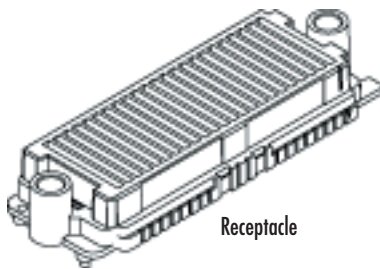
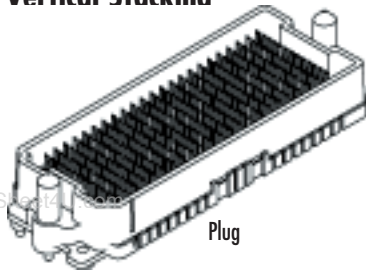
Offset Height	6 Pair	12 Pair	24 Pair	36 Pair	Lead-free
5.5mm (.216")	75003-0305	75003-0005	75003-0105	75003-0205	Yes
8.5mm (.335")	75003-0308	75003-0008	75003-0108	75003-0208	
10.5mm (.413")	75003-0310	75003-0010	75003-0110	75003-0210	

Receptacle

Offset Height	6 Pair	12 Pair	24 Pair	36 Pair	Lead-free
4.5mm (.177")	75005-0304	75005-0004	75005-0104	75005-0204	Yes
6.5mm (.256")	75005-0306	75005-0006	75005-0106	75005-0206	
14.5mm (.571")	75005-0314	75005-0014	75005-0114	75005-0214	

1.20 x 2.00mm (.047 x .079") Pitch HD Mezz™ Board-to-Board Plug and Receptacle

45830/45802
SMT, Pin Field
Vertical Stacking



Features and Benefits

- RoHS Compliant solder charge for SMT
- Dual contact interface points
- Guide pins for gross alignment
- 16mm to 36mm mated heights
- 117 to 403 circuits available

Reference Information

Product Specification: PS-45802-001
Packaging: Tray
Designed In: Millimeters

Electrical

Voltage: 250 VAC per contact
Current: 2.0A per contact
Contact Resistance: 25 milliohms nom.
Dielectric Withstanding Voltage: 500 VDC
Insulation Resistance: 5000 Megohms minimum
across wafers, 1000 within

Mechanical

Mating Force: 51g nom. per contact
Unmating Force: 25g nom. per contact
Normal Force: 51g nom. per contact
Durability: 100 cycles

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.75µm Gold min.
Solder Tail Area—2.50µm Tin min.
Underplating—1.25µm Nickel overall
Operating Temperature: -55 to +105°C

Circuits	Order No.	Description	Height	Lead-free
143	45802-0311	Receptacle	8.00mm (.315")	Yes
195	45802-0215			
299	45802-0223			
143	45802-1211		18.00mm (.709")	
299	45802-1223			
325	45802-1225			

Circuits	Order No.	Description	Height	Lead-free
195	45830-0215	Plug	8.00mm (.315")	Yes
299	45830-0223			
143	45830-2211			
299	45830-2223		10.00mm (.393")	
325	45830-2225			
143	45830-1211			

Notes:

- 1) Plug and receptacle heights should be added together to obtain mated stack heights
- 2) Please contact Molex for other circuit sizes and mated stack heights
- 3) Please contact Molex for HD Mezz™ parts with Tin/Lead solder charges




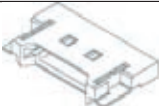
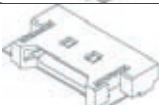






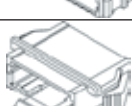
A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

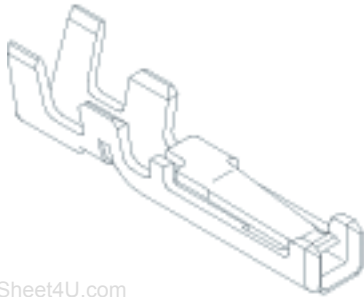
1.25mm (.049") Pitch

A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

Pitch	Series		Tradename	Description	Unmated Height
1.25mm (.049")	50641/50753		PanelMate™	Female Crimp Terminal	
	51146			Housing	Ultra Low
	55063			Header	1.03mm (.041")
	53779			Header	1.35mm (.053")
	53780			Header	1.90mm (.075")
	55178			Shielded Header	0.98mm (.038")
	54596			Mini Mi II™	IDT Receptacle
	54597		Clip		
	55450		Header		6.75mm (.266")
	55454		Header		
	55456		Header		4.50mm (.177")
	55482		Adapter		

1.25mm (.049") Pitch PanelMate™ Wire-To-Board Crimp Terminal 50641/50753



www.DataSheet4U.com

Features and Benefits

- Box-style contact design provides protection and secure mating force
- Locking tang latches into housing window

Reference Information

Packaging: Reel or bag
Use With: 51146
Designed In: Millimeters

Electrical

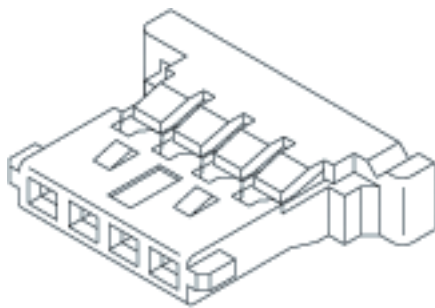
Voltage: 125V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance: 100 Megohms min.

Physical

Contact: Phosphor Bronze
Plating: Gold over Nickel
Wire Range: 50641—28 to 32 AWG
50753—30 to 32 AWG
Insulation Diameter:
50641—0.50 to 0.90mm (.020 to .035") max.
50753—0.40 to 0.55mm (.016 to .022") max.
Strip Length: 1.3 to 1.7mm

Order No.	Packaging	Wire Gauge	Lead-free
50641-8041	Reel	28 to 30 AWG	Yes
50641-8141	Bag		
50753-8041	Reel	30 to 32 AWG	
50753-8141	Bag		

1.25mm (.049") Pitch PanelMate™ Wire-to-Board Housing 51146 Ultra Low Profile



Features and Benefits

- Sizes 2 to 30 circuits
- Very thin design (1.80mm)
- Housing lance provides extra terminal retention
- Friction lock provides secure mating
- Polarized design

Reference Information

Packaging: Bag
Use With: 50641 terminal
Mates With: 53780
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance: 100 Megohms min.

Physical

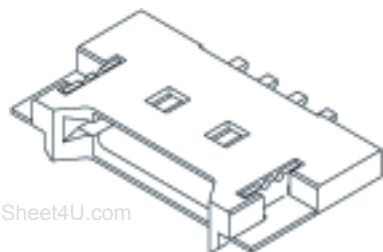
Housing: PBTP, UL 94V-0
Operating Temperature: -40 to +85°C

Circuits	Order No.
2	51146-0200
3	51146-0300
4	51146-0400
5	51146-0500
6	51146-0600
7	51146-0700
8	51146-0800

Circuits	Order No.
9	51146-0900
14	51146-1400
15	51146-1500
20	51146-2000
22	51146-2200
26	51146-2600
30	51146-3000

1.25mm (.049") Pitch PanelMate™ Wire-To-Board Header

55063
Right Angle, SMT
1.03mm (.041") Profile



Features and Benefits

- Sizes 2, 3, 4, 14, 20, 22 and 30 circuits
- Mid-plane design is recessed into PCB to provide extremely low profile of 1.03mm (.041")
- Durable blade-type pins protect against damage during mating
- Metal solder tabs provide PCB retention and strain relief for SMT tails
- Solder-conducting fillet SMT tail design helps ensure stable solder joints
- Fully-shrouded anti-flux wicking design protects contacts during soldering and cleaning processes

Reference Information

Packaging: Embossed tape
Mates With: 51146 and 54281
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

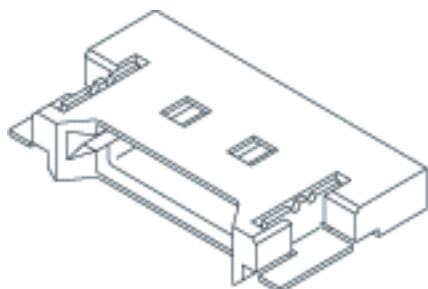
Physical

Housing: PPHS, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold over Nickel plating in contact area; Tin over Nickel plating in tail area
Solder Tabs: Phosphor Bronze, Tin over Nickel plating
Operating Temperature: -40 to +85°C

Circuits	Order No.	Carrier Tape Width	Lead-free
2	55063-0270	16.00 (.629)	Yes
3	55063-0370		
4	55063-0470	24.00 (.945)	
14	55063-1470	44.00 (1.732)	
20	55063-2070		
22	55063-2270		
30	55063-3070	56.00 (2.205)	

1.25mm (.049") Pitch PanelMate™ Wire-to-Board Header

53779
Right Angle, SMT
1.35mm (.053") Profile



Features and Benefits

- Sizes 2, 3, 4, 5, 9, 14, 15, 20 and 30 circuits
- Header is recessed into PCB to provide extremely low mating profile of 1.35mm (.053")
- Durable blade-type pins protect against damage during mating
- Metal solder tabs provide PCB retention and strain relief for SMT tails
- Solder-conducting fillet SMT tail design helps ensure stable solder joints
- Fully-shrouded anti-flux wicking design protects contacts during soldering and cleaning processes

Reference Information

Packaging: Embossed tape
Mates With: 51146 and 54281
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance: 100 Megohms min.

Physical

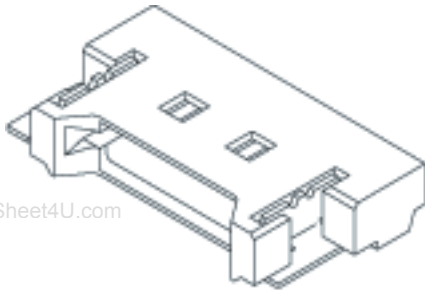
Housing: PPHS, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold (Tin on SMT tails)
Solder Tabs: Phosphor Bronze, Tin/Lead plating
Operating Temperature: -40 to +85°C

Circuits	Order No.	Carrier Tape Width	Lead-free
2	53779-0270	16.00 (.629)	Yes
3	53779-0370		
4	53779-0470		
5	53779-0570	24.00 (.945)	
6	53779-0670		
7	53779-0770		
8	53779-0870		
9	53779-0970		

Circuits	Order No.	Carrier Tape Width	Lead-free
14	53779-1470	44.00 (1.732)	Yes
15	53779-1570		
20	53779-2070		
22	53779-2270		
26	53779-2670	56.00 (2.205)	
30	53779-3070		

1.25mm (.049") Pitch PanelMate™ Wire-to-Board Header

53780
Right Angle, SMT
1.90mm (.075") Profile



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Features and Benefits

- Sizes 2 to 20 circuits
- Ultra low mating profile of 1.90mm (.075")
- Durable blade-type pins protect against damage during mating
- Metal solder tabs provide PCB retention and strain relief for SMT tails
- Solder-conducting fillet SMT tail design helps ensure stable solder joints
- Fully-shrouded anti-flux wicking design protects contacts during soldering and cleaning processes

Reference Information

Packaging: Embossed tape
Mates With: 51146 and 54281
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance: 100 Megohms min.

Physical

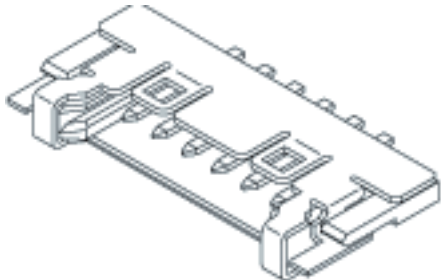
Housing: PPHS, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold (Tin on SMT tails)
Solder Tabs: Phosphor Bronze, Tin plating
Operating Temperature: -40 to +85°C

Circuits	Order No.	Carrier Tape Width	Lead-free
2	53780-0270	16.00 (.630)	Yes
3	53780-0370		
4	53780-0470		
5	53780-0570	24.00 (.945)	
6	53780-0670		
7	53780-0770		

Circuits	Order No.	Carrier Tape Width	Lead-free
8	53780-0870	24.00 (.945)	Yes
9	53780-0970		
14	53780-1470		
15	53780-1570	44.00 (1.732)	
20	53780-2070		

1.25mm (.049") Pitch PanelMate™ Wire-To-Board Shielded Header

55178
Right Angle, SMT
0.98mm (.038") Profile



Features and Benefits

- Sizes 14, 20 and 30 circuits
- Metal shielding provides EMI protection
- Mid-plane design is recessed into PCB to provide extremely low profile of 0.98mm (.0386")
- Durable blade-type pins protect against damage during mating
- Metal solder tabs provide PCB retention and strain relief for SMT tails
- Solder-conducting fillet SMT tail design helps ensure stable solder joints

Reference Information

Packaging: Embossed tape
Mates With: 51146
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage:
Mated With 51146— 500V AC/1 min.
Mated With 54281— 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

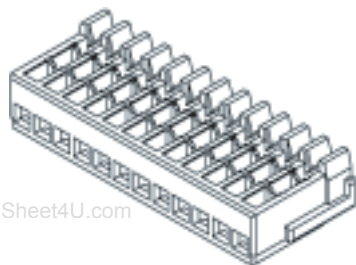
Physical

Housing: PPHS, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold plating in contact area; Tin plating in tail area
Shell: Phosphor Bronze, Tin over Nickel plating
Solder Tabs: Phosphor Bronze, Tin plating
Operating Temperature: -40 to +105°C

Circuits	Order No.	Carrier Tape Width	Lead-free
14	55178-1471	44.00 (1.732)	Yes
20	55178-2071		
30	55178-3071	56.00 (2.205)	

1.25mm (.049") Pitch Mini Mi II™ System Wire-to-Board Receptacle

54596
Single Row
IDT



Features and Benefits

- Sizes 2 to 20 circuits
- IDT provides secure and cost-effective termination
- Contact design protects header pins during mating/unmating
- Housing length designed for easy handling
- IDT guide slots facilitate wire placement
- Side ribs provide polarization and locking to clip

Reference Information

Product Specification: PS-54596-007
 Packaging: Bag
 Mates With: 55447, 55454 and 55451 (with 54597 clip)
 Use With: 54597 clip for dual-row applications
 Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 1.5A
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 500V AC/1 min.
 Insulation Resistance: 1000 Megohms min.

Physical

Housing: Nylon, UL 94V-0
 Contact: Phosphor Bronze
 Plating: Pre-Tin
 Wire Range: 26 to 28 AWG
 Insulation Range: 0.80 to 0.90mm (.031 to .035") dia.
 Operating Temperature: -40 to +105°C

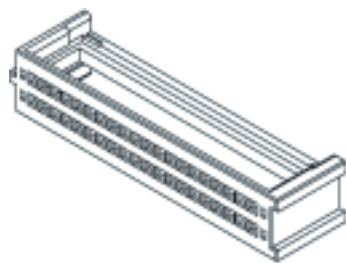
Circuits	Order No.	Lead-free
2	54596-0210	Yes
3	54596-0310	
4	54596-0410	
5	54596-0510	
6	54596-0610	
7	54596-0710	
8	54596-0810	

Circuits	Order No.	Lead-free
9	54596-0910	Yes
10	54596-1010	
11	54596-1110	
12	54596-1210	
13	54596-1310	
14	54596-1410	
15	54596-1510	

Circuits	Order No.	Lead-free
16	54596-1610	Yes
17	54596-1710	
18	54596-1810	
19	54596-1910	
20	54596-2010	

1.25mm (.049") Pitch Mini Mi II™ System Clip

54597
Dual Row



Features and Benefits

- Sizes 10 to 40 circuits
- Joins two single row receptacles (54596)
- Polarized to ensure correct mating orientation
- Locking feature ensures secure receptacle retention

Reference Information

Product Specification: PS-54596-007
 Packaging: Bag
 Mates With: 55659
 Use With: 54596
 Designed In: Millimeters

Physical

Housing: Nylon, UL 94V-0
 Operating Temperature: -40 to +105°C

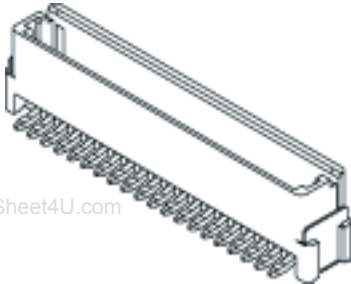
Circuits	Order No.	Lead-free
10	54597-1000	Yes
12	54597-1200	
14	54597-1400	
16	54597-1600	
18	54597-1800	
20	54597-2000	

Circuits	Order No.	Lead-free
22	54597-2200	Yes
24	54597-2400	
26	54597-2600	
28	54597-2800	
30	54597-3000	
32	54597-3200	

Circuits	Order No.	Lead-free
34	54597-3400	Yes
36	54597-3600	
38	54597-3800	
40	54597-4000	

1.25mm (.049") Pitch Mini Mi II™ Wire-to-Board Header

55450
SMT, Single Row
Vertical, with Plastic Pegs



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Features and Benefits

- Sizes 2 to 20 circuits
- Friction lock provides secure mating
- Polarized inner walls provide correct mating orientation
- Optional PCB pegs facilitate board placement and provide polarization

Reference Information

Product Specification: PS-54596-022
Packaging: Embossed tape on reel
Mates With: 54596
Designed In: Millimeters

Electrical

Voltage: 100V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 50V AC/1 min.
Insulation Resistance: 1000 Megohms min.

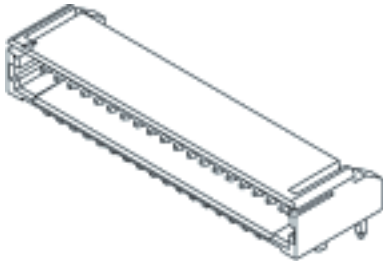
Physical

Housing: Beige PA Polyamide (nylon), UL 94V-0
Contact: Brass
Plating: Contact Area—Tin
Solder Tail Area—Tin
Underplating: Nickel
Operating Temperature: -40 to +105°C

Circuits	Order No.		Lead-free
	With Pegs	Without Pegs	
2	55450-0259	55450-0269	Yes
5	55450-0559	55450-0569	
7		55450-0769	
16		55450-1669	

1.25mm (.049") Pitch Mini Mi II™ System Wire-to-Board Header

55454
Single Row
Right Angle



Features and Benefits

- Sizes 2 to 20 circuits
- Friction lock provides secure mating
- Kinked outer tails for additional PCB retention
- Polarized inner side-walls ensure correct mating orientation
- Extended outer side-walls protect solder tails
- Polarizing pegs assist board placement

Reference Information

Product Specification: PS-54596-007
Packaging: Tray
Mates With: 54596
Designed In: Millimeters

Electrical

Voltage: 100V
Current: 1.5A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 1000 Megohms min.

Physical

Housing: Nylon, UL 94V-0
Contact: Brass
Plating: Pre-Tin
Operating Temperature: -40 to +105°C

Circuits	Order No.	Lead-free
2	55454-0270	Yes
3	55454-0370	
4	55454-0470	
5	55454-0570	
6	55454-0670	
7	55454-0770	
8	55454-0870	

Circuits	Order No.	Lead-free
9	55454-0970	Yes
10	55454-1070	
11	55454-1170	
12	55454-1270	
13	55454-1370	
14	55454-1470	
15	55454-1570	

Circuits	Order No.	Lead-free
16	55454-1670	Yes
17	55454-1770	
18	55454-1870	
19	55454-1970	
20	55454-2070	

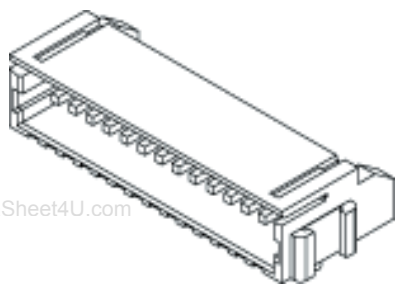
1.25mm (.049") Pitch

Mini Mi II™

Wire-to-Board Header

55456

SMT, Single Row, Right Angle With Plastic Peg



Features and Benefits

- Sizes 4 to 20 circuits
- Polarizing pegs assist board placement

Reference Information

Product Specification: PS-54596-022
 Packaging: Embossed tape on reel
 Mates With: 54596
 Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 1.5A
 Contact Resistance: 20 milliohms max.
 Dielectric Withstanding Voltage: 500V AC/1 min.
 Insulation Resistance: 1000 Megohms min.

Physical

Housing: Beige PA Polyamide, UL 94V-0
 Contact: Brass
 Plating: Contact Area—Tin
 Solder Tail Area—Tin
 Underplating: Nickel
 Operating Temperature: -40 to +105°C

Circuits	Order No.		Lead-free
	With Pegs	Without Pegs	
5	55456-0559	55456-0569	Yes

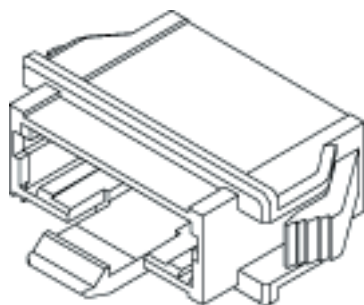
1.25mm (.049") Pitch

Mini Mi II™

Wire-to-Wire Adapter

55482

Single Row



Features and Benefits

- Provides panel-mount method of linking harnesses
- Mounting ears provide good spring characteristics and strong panel retention

Reference Information

Product Specification: PS-55482-006
 Packaging: Bag
 Use With: 54596
 Designed In: Millimeters

Electrical

Voltage: 100V
 Current: 1.5A
 Contact Resistance: 40 milliohms max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 1000 Megohms min.

Physical

Housing: PA Polyamide (Nylon) 6/6, UL 94V-0
 Contact: Brass
 Plating: Tin over Copper
 Operating Temperature: -20 to +80°C






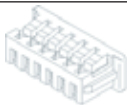

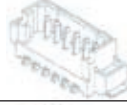

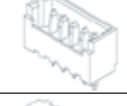



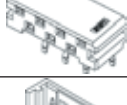

Circuits	Order No.	Lead-free
2	55482-0219	Yes
3	55482-0319	
4	55482-0419	
5	55482-0519	
6	55482-0619	
7	55482-0719	
8	55482-0819	
9	55482-0919	
10	55482-1019	
11	55482-1119	

Circuits	Order No.	Lead-free
12	55482-1219	Yes
13	55482-1319	
14	55482-1419	
15	55482-1519	
16	55482-1619	
17	55482-1719	
18	55482-1819	
19	55482-1919	
20	55482-2019	

1.25mm (.049") Pitch

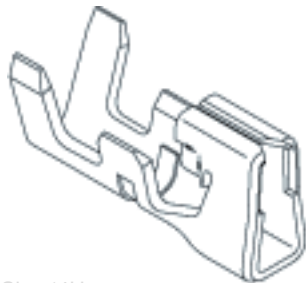
A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

Pitch	Series		Tradename	Description	
1.25mm (.049")	50516		Pico-Gold™	Female Crimp Terminal	
	51127			Housing	
	53505			Header	
	50079/50058		PicoBlade™	Female Crimp Terminal	
	50125/50133			Male Crimp Terminal	
	51021			Housing	
	51047			Housing	
	53398			Header	
	53261			Header	
	53047			Header	
	53058			Header	
	50061/50080			Board-In	Crimp Terminal
	51022				Housing
	87871		ZigZag	Receptacle	
	87872			Header	

www.DataSheet4U.com

1.25mm (.049") Pitch Pico-Gold™ Wire-to-Board Crimp Terminal 50516



Order No.	Terminal	Lead-free
50516-8041	Reel	Yes

Features and Benefits

- Locking tang provides terminal retention to housing

Reference Information

Packaging: Reel
Use With: 51127
Designed In: Millimeters

Electrical

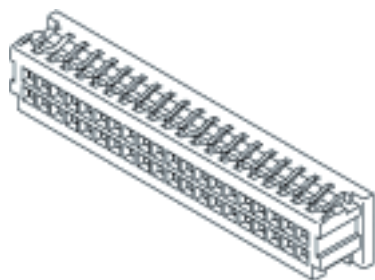
Voltage: 125V
Current: 1.0A (32 AWG—0.8A)

Physical

Contact: Phosphor Bronze
Plating: Gold over Nickel
Wire Range: 28 to 32 AWG
Insulation Diameter: 0.5 to 1.0mm dia. max.
Strip Length: 1.20 to 1.70mm max.

www.molex.com/customer.html?seriesNumber=50516

1.25mm (.049") Pitch Pico-Gold™ Wire-to-Board Housing 51127 Dual Row



Circuits	Order No.
20	51127-2005
30	51127-3005
40	51127-4005

Features and Benefits

- Sizes: 20, 30 and 40 circuits
- Housing lance provides extra terminal retention

Reference Information

Packaging: Bag
Use With: 50516
Mates With: 53505
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance: 100 Megohms min.

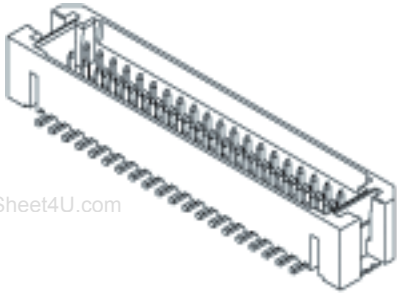
Physical

Housing: PBTP, UL 94V-0
Operating Temperature: -40 to +85°C



1.25mm (.049") Pitch Pico-Gold™ Wire-to-Board Header

53505 Dual Row Vertical, SMT



www.DataSheet4U.com

Features and Benefits

- Sizes: 20, 30 and 40 circuits
- Mated height only 5.9mm

Reference Information

Packaging: Embossed tape
Mates With: 51127
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC
Insulation Resistance: 100 Megohms min.

Physical

Housing: Glass-filled PPA, UL 94V-0
Contact: Phosphor Bronze
Contact Plating: Gold over Nickel
Solder Tail Plating: Tin over Nickel
Solder Tabs: Phosphor Bronze, Tin over Nickel plating
Operating Temperature: -40 to +85°C

Circuits	Order No.	Carrier Tape Width	Lead-free
20	53505-2071	32.00 (1.259)	Yes
30	53505-3071	44.00 (1.732)	
40	53505-4071		

Note: Contact Molex for for embossed tape specifications

www.molex.com/customer.html?seriesNumber=53505

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board and Wire-to-Wire Crimp Terminal

50079/50058 Female



Features and Benefits

- Locking tang for secure housing retention

Reference Information

Packaging: Reel or bag
Use With: 51021
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A (32 AWG—0.8A)
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Contact: Phosphor Bronze
Plating: Tin
Wire Range: 26 to 28 AWG—50079
28 to 32 AWG—50058
Insulation Range: 50058—1.00mm dia. max.
50079—1.04mm dia. max.
Strip Length: 1.40 to 1.90mm

Order No.	Wire Range AWG	Terminal	Lead-free
50079-8000	26 - 28	Reel	Yes
50058-8000	28 - 32		
50079-8100	26 - 28	Bag	
50058-8100	28 - 32		

1.25mm (.049") Pitch PicoBlade™ Wire-To-Wire Crimp Terminal 50125/50133 Male



Features and Benefits

- Locking tang for secure housing retention

Reference Information

Packaging: Reel or bag
Use With: 51047
Mates With: 50079 and 50058
Designed In: Millimeters

Electrical

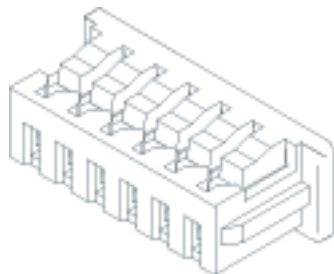
Voltage: 125V
Current: 1.0A (AWG 32—0.8A)
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Contact: Phosphor Bronze
Plating: Tin
Wire range: 26 to 28 AWG—50125
28 to 32 AWG—50133
Insulation Diameter: 1.0mm dia. max.
Strip Length: 1.4 to 1.9mm

Order No.	Wire Range AWG	Packaging	Lead-free
50125-8000	26 to 28	Reel	Yes
50125-8100		Bag	
50133-8000	28 to 32	Reel	
50133-8100		Bag	

1.25mm (.049") Pitch PicoBlade™ Wire-to-Wire and Wire-to-Board Receptacle 51021



Features and Benefits

- Sizes 2 to 15 circuits
- Housing lance provides extra terminal retention
- Friction locks provide secure mating

Reference Information

Packaging: Bag
UL File No.: E29179
CSA File No.: LR19980
Use With: 50079/50058
Mates With: 53398, 53261, 53047, 53048 and 51047
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A (32 AWG—0.8A)
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PBTP, UL 94V-0
Operating Temperature: -40 to +85°C

Circuits	Order No.	Circuits	Order No.
2	51021-0200	9	51021-0900
3	51021-0300	10	51021-1000
4	51021-0400	11	51021-1100
5	51021-0500	12	51021-1200
6	51021-0600	13	51021-1300
7	51021-0700	14	51021-1400
8	51021-0800	15	51021-1500

1.25mm (.049") Pitch PicoBlade™ Wire-to-Wire Plug 51047

Features and Benefits

- Sizes 2 to 10 circuits

Reference Information

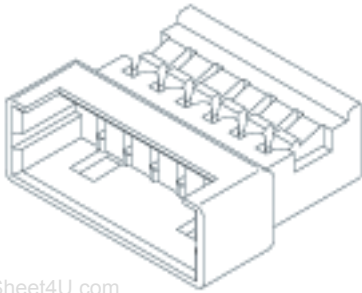
Packaging: Bag
Use With: 50125/50133
Mates With: 51021
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A (32 AWG—0.8A)
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: PBTP, UL 94V-0
Operating Temperature: -40 to +85°C



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Circuits	Order No.
2	51047-0200
3	51047-0300
4	51047-0400
5	51047-0500
6	51047-0600

Circuits	Order No.
7	51047-0700
8	51047-0800
9	51047-0900
10	51047-1000

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header 53398 Vertical, SMT

Features and Benefits

- Sizes 2 to 15 circuits
- Locking windows provide secure mating
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails

Reference Information

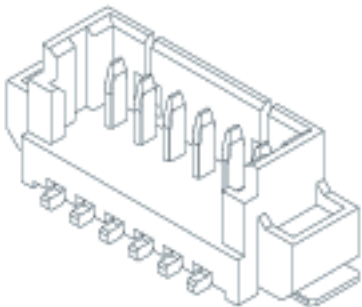
Packaging: Embossed tape
Mates With: 51021
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A (32 AWG—0.8A)
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: Glass-filled 4/6 nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Solder Tabs: Phosphor Bronze, Tin plating
Operating Temperature: -40 to +85°C

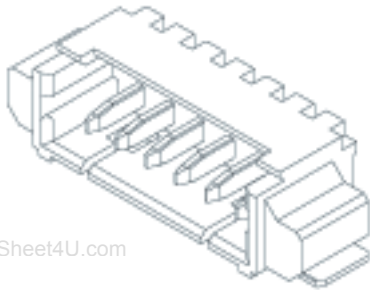


Circuits	Order No.	Carrier Tape Width	Lead-free
2	53398-0271	16.00 (.630)	Yes
3	53398-0371		
4	53398-0471		
5	53398-0571	24.00 (.945)	
6	53398-0671		
7	53398-0771		
8	53398-0871		
9	53398-0971		
10	53398-1071		

Circuits	Order No.	Carrier Tape Width	Lead-free
11	53398-1171	32.00 (1.260)	Yes
12	53398-1271		
13	53398-1371		
14	53398-1471	44.00 (1.732)	
15	53398-1571		

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header

53261
Right Angle, SMT



Features and Benefits

- Sizes 2 to 15 circuits
- Locking windows provide secure mating
- Metal solder tabs provide PCB hold-down and strain relief for SMT tails

Reference Information

Packaging: Embossed tape
UL File No.: E29179
CSA File No.: LR19980
Mates With: 51021
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A (32 AWG—0.8A)
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

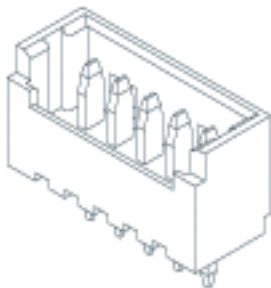
Housing: 4/6 nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Solder Tabs: Phosphor Bronze, Tin plating
Operating Temperature: -40 to +85°C

Circuits	Order No.	Carrier Tape Width	Lead-free
2	53261-0271	16.00 (.630)	Yes
3	53261-0371		
4	53261-0471		
5	53261-0571	24.00 (.945)	
6	53261-0671		
7	53261-0771		
8	53261-0871		
9	53261-0971		
10	53261-1071		

Circuits	Order No.	Carrier Tape Width	Lead-free
11	53261-1171	32.00 (1.260)	Yes
12	53261-1271		
14	53261-1471		
15	53261-1571	44.00 (1.732)	

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header

53047
Vertical



Features and Benefits

- Sizes 2 to 15 circuits
- Locking windows provide secure mating

Reference Information

Packaging: Tray
Mates With: 51021
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A (32 AWG—0.8A)
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

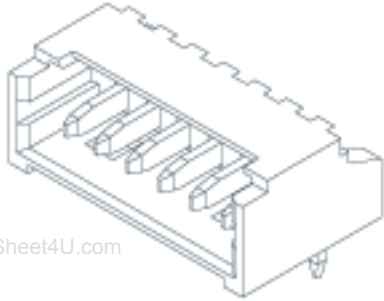
Physical

Housing: 6/6 nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Operating Temperature: -40 to +85°C

Circuits	Order No.	Lead-free
2	53047-0210	Yes
3	53047-0310	
4	53047-0410	
5	53047-0510	
6	53047-0610	
7	53047-0710	
8	53047-0810	

Circuits	Order No.	Lead-free
9	53047-0910	Yes
10	53047-1010	
11	53047-1110	
12	53047-1210	
13	53047-1310	
14	53047-1410	
15	53047-1510	

1.25mm (.049") Pitch PicoBlade™ Wire-to-Board Header 53048 Right Angle



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Features and Benefits

- Sizes 2 to 15 circuits
- Locking windows provide secure mating

Reference Information

Packaging: Tray
Mates With: 51021
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A (32 AWG—0.8A)
Contact Resistance: 20 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

Physical

Housing: 6/6 nylon, UL 94V-0
Contact: Phosphor Bronze
Plating: Tin
Operating Temperature: -40 to +85°C

Circuits	Order No.	Lead-free
2	53048-0210	Yes
3	53048-0310	
4	53048-0410	
5	53048-0510	
6	53048-0610	
7	53048-0710	
8	53048-0810	

Circuits	Order No.	Lead-free
9	53048-0910	Yes
10	53048-1010	
11	53048-1110	
12	53048-1210	
13	53048-1310	
14	53048-1410	
15	53048-1510	

A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

1.25mm (.049") Pitch Board-In Connector Crimp Terminal

50061/50080



Features and Benefits

- Locking tang secures terminal to housing

Reference Information

Packaging: Bag or reel
Use With: 51022
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A (0.8A for 32 AWG)
Contact Resistance on Crimped Portion:
5 milliohms max.
Dielectric Withstanding Voltage: 250V AC/1 min.
Insulation Resistance: 100 Megohms min.

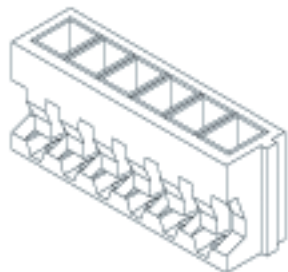
Physical

Contact: Phosphor Bronze
Plating: Tin
Wire Range: 50061 (28 to 32 AWG)
50080 (26 to 28 AWG)
Insulation Range: 1.00mm dia. max.
Strip Length: 1.40 to 1.90mm

Order No.	Wire Range AWG	Terminal	Lead-free
50061-8000	28-32	Reel	Yes
50080-8000	26-28		
50061-8100	28-32	Bag	
50080-8100	26-28		

1.25mm (.049") Pitch Board-In Connector Housing

51022



Features and Benefits

- Sizes 2 to 15 circuits
- Low profile of 3.50mm (.138")
- Locking window secures terminal to housing

Reference Information

Packaging: Bag
Use With: 50061/50080
Designed In: Millimeters

Physical

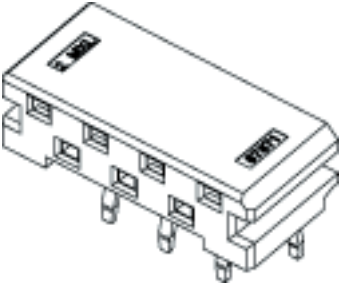
Housing: PBTP, UL 94V-0
Operating Temperature: -40 to +85°C

Circuits	Order No.
2	51022-0200
3	51022-0300
4	51022-0400
5	51022-0500
6	51022-0600
7	51022-0700
8	51022-0800

Circuits	Order No.
9	51022-0900
10	51022-1000
12	51022-1200
13	51022-1300
14	51022-1400
15	51022-1500

1.25mm (.049") Pitch Board-to-Board ZIGZAG Receptacle

87871 With Friction Lock



- Features and Benefits**
- Sizes 3 to 23 circuits
 - Kinked solder tails provide retention to the PCB
 - Polarization to ensure proper mating
 - Friction lock provides passive lock to mating connector
 - Tape and reel packaging options available
- Reference Information**
- Product Specification: PS-87871-006
 - Packaging: Tube
 - UL File No.: E29179
 - CSA File No.: LR19980
 - Mates With: 87872
 - Designed In: Millimeters

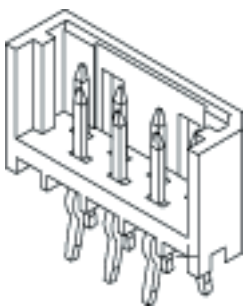
- Electrical**
- Voltage: 125V
 - Current: 2.0A
 - Contact Resistance: 40 milliohms max.
 - Dielectric Withstanding Voltage: 500V AC / 1 min.
 - Insulation Resistance: 1000 Megohms min.
- Physical**
- Housing: Glass-filled nylon, UL94V-0
 - Contact: Phosphor Bronze
 - Plating: Tin
 - PCB Thickness: 1.60mm
 - Operating Temperature: -40 to +105°C

Circuits	Order No.	Lead-free
3	87871-2203	Yes
5	87871-2205	
7	87871-2207	
9	87871-2209	
11	87871-2211	
13	87871-2213	
15	87871-2215	
17	87871-2217	
19	87871-2219	
21	87871-2221	
23	87871-2223	

www.molex.com/customer.html?seriesNumber=87871

1.25mm (.049") Pitch Board-to-Board ZIGZAG Header

87872 With Friction Lock



- Features and Benefits**
- Sizes 3 to 23 circuits
 - Kinked solder tails provide retention to the PCB
 - Polarization to ensure proper mating
 - Friction lock provides passive lock to mating connector
- Reference Information**
- Product Specification: PS-87871-006
 - Packaging: Tube
 - UL File No.: E29179
 - CSA File No.: LR19980
 - TUV File No.:
 - Mates With: 87871
 - Designed In: Millimeters

- Electrical**
- Voltage: 125V
 - Current: 2.0A
 - Contact Resistance: 40 milliohms max.
 - Dielectric Withstanding Voltage: 500V AC / 1 min.
 - Insulation Resistance: 1000 Megohms min.
- Physical**
- Housing: Glass-filled nylon, UL94V-0
 - Contact: Brass
 - Plating: Tin
 - PCB Thickness: 1.60mm
 - Operating Temperature: -40 to +105°C

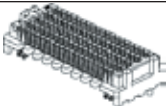

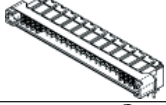



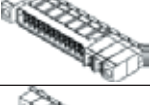


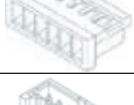
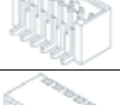

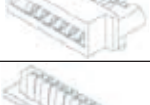

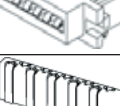
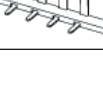
Circuits	Order No.	Lead-free
3	87872-1103	Yes
5	87872-1105	
7	87872-1107	
9	87872-1109	
11	87872-1111	
13	87872-1113	
15	87872-1115	
17	87872-1117	
19	87872-1119	
21	87872-1121	
23	87872-1123	



1.27 x 1.27mm (.050 x .050")–1.60mm (.062") Pitch

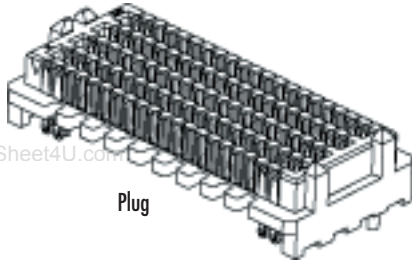
A

0.40 to 1.60mm (.016 to .063") Pitch PCB and Wire Connectors

Pitch	Series		Tradename	Description
1.27mm (.050")	45970		SEARAY*	Plug
	45971			Receptacle
1.27mm (.050")	75140		Plateau HS Dock™	Plug
	75018			Plug
	75019			Receptacle
	75126			Interposer Plug
	75475			Plateau HS Dock™ PG
75476		Receptacle		
1.50mm (.059")	87421		Pico-SPOX™	Female Crimp Terminal
	87439			Housing
	87437			Header
	87438			Header
1.60mm (.062")	52712			Panel Detachable Receptacle
	53440			Panel Detachable Plug
	87868			Panel Detachable Receptacle
	87869			Panel Detachable Header

*SEARAY is a trademark of Samtec, Inc.

**1.27 x 1.27mm
(.050 x .050") Pitch
SEARAY*
Board-to-Board
Plug and Receptacle
45970/45971
SMT, Pin Field
Vertical Stacking**



Plug



Receptacle

Features and Benefits

- RoHS Compliant solder charge for SMT
- Recessed contacts prevent stubbing
- Guide beams for gross alignment
- 7.00 to 13.00mm (.276 to .512") mated heights
- 100 to 500 circuits available

Reference Information

Product Specification: PS-45970-001
Packaging: Tray
Designed In: Inches

Electrical

Voltage: 250V AC
Current: 1.0A
Contact Resistance: 25 milliohms nom.
Dielectric Withstanding Voltage: 500V DC
Insulation Resistance: 5000 Megohms min.

Mechanical

Mating Force: 50g max.
Unmating Force: 30g max.
Normal Force: 82g max.
Durability: 100 cycles

Physical

Housing: Glass-filled LCP, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—0.75µm Gold min.
Solder Tail Area—3.80µm Tin min.
Underplating—1.25µm Nickel min. overall
Operating Temperature: -55 to +105°C

Circuits	Order No.	Description	Lead-free
114	45970-9111	Plug	Yes
200	45970-2311		
400	45970-4111 45970-4311		

Circuits	Order No.	Description	Lead-free
114	45971-9111	Receptacle	Yes
200	45971-2311		
400	45971-4111 45971-4411		

Notes:

- 1) Refer to the product sales drawing for mated stack height options
- 2) Please contact Molex for other circuit sizes, mated stack heights and no peg options
- 3) Please contact Molex for SEARAY parts with Tin/Lead solder charges

*SEARAY is a trademark of Samtec, Inc.

1.50mm (.059") Pitch Plateau HS Dock™ High Speed Docking Connectors

75018/75019/75140
Right Angle Plug
Right Angle Receptacle
Vertical Plug

Features and Benefits

- Metal-plated plastic housing provides shielding for very low crosstalk and supports signal speeds in excess of 10 Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Various offset heights (from top of PCB) provide application design flexibility
- Four levels of mating and guide features support hot pluggable applications, ensure proper mating and provide first-mate/last-break
- RoHS Level 5 compliant

Reference Information

Product Specification: PS-75018-001
 Packaging: Tray
 UL File No.: E29179
 CSA File No.: 1373502
 Designed In: Millimeters

Electrical

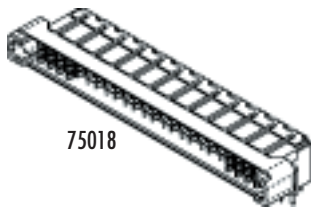
Voltage: 12V DC
 Current: 2.75A
 Contact Resistance: 30 milliohms max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 1,000 Megohms min.

Mechanical

Insertion Force to PCB: 35N max. per compliant pin
 Retention Force to PCB: 9N max. per compliant pin
 Mating Force: 80N max.
 Unmating Force: 20N min.
 Durability: 100 cycles

Physical

Housing: Liquid Crystal Polymer, UL 94V-0
 Contact: Copper Alloy
 Plating: Contact Area—30µ" min. Select Gold
 Tail Area—Tin/Lead
 Underplating: Nickel
 PCB Thickness: 1.80mm (.071")
 Operating Temperature: -20 to +85°C



75018



75019



75140

Right Angle Plug

Circuits	Order No.	Centerline Height	Height	Length	Lead-free
144	75018-0021	4.74 (.187)	9.78 (.385)	96.50 (3.799)	RoHS compliant by exemption
	75018-0022	5.74 (.226)	10.78 (.424)		
	75018-0023	8.74 (.334)	13.78 (.543)		
108	75018-0024	4.74 (.187)	9.78 (.385)	75.50 (2.972)	
	75018-0025	8.74 (.334)	13.78 (.543)		
120	75018-0026	4.74 (.187)	9.78 (.385)	82.50 (3.248)	
108	75018-0027	5.74 (.226)	10.78 (.424)	75.50 (2.972)	
120	75018-0029			82.50 (3.248)	

Right Angle Receptacle

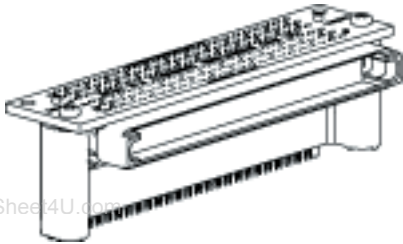
Circuits	Order No.	Centerline Height	Height	Length	Lead-free
108	75019-0013	4.74 (.187)	9.98 (.393)	72.50 (2.854)	RoHS compliant by exemption
120	75019-0014			79.50 (3.130)	
144	75019-0015			6.09 (.240)	
	75019-0016	72.50 (2.854)			
108	75019-0017				

Vertical Plug

Circuits	Order No.	Centerline Height	Height	Length	Lead-free
144	75140-0012	N / A	10.07 (.396)	96.50 (3.799)	RoHS compliant by exemption

1.50mm (.059") Pitch Plateau HS Dock™ High Speed Docking Connectors Interposer Plug

75126
Elevated, Right Angle



Features and Benefits

- Plateau HS Dock plug raised to stack above a standard, right angle plug on the PCB
- Metal-plated plastic housing provides shielding for very low crosstalk and supports signal speeds in excess of 10 Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Four levels of mating and guide features support hot pluggable applications, ensure proper mating and provide first-mate/last-break
- RoHS Level 5 compliant

Reference Information

Product Specification: PS-75018-001
Packaging: Tray
UL File No.: E29179
CSA File No.: 1373502
Designed In: Millimeters

Electrical

Voltage: 12V DC
Current: 2.75A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1,000 Megohms min.

Mechanical

Insertion Force to PCB: 35N max. per compliant pin
Retention Force to PCB: 9N max. per compliant pin
Mating Force: 80N max.
Unmating Force: 20N min.
Durability: 100 cycles

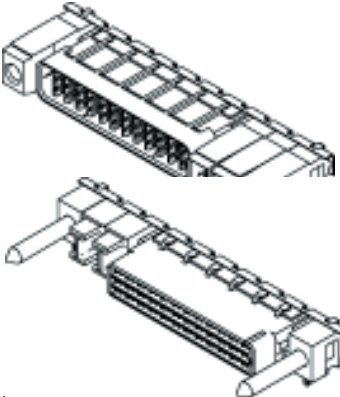
Physical

Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—30µ" min. Select Gold
Tail Area—Tin/Lead
Underplating: Nickel
PCB Thickness: 1.80mm (.071")
Operating Temperature: -20 to 85°C

Circuits	Order No.	Centerline Height	Total Height	Total Length	Lead-free
144	75126-1003	24.26 (.955)	32.80 (1.291)	111.50 (4.390)	RoHS compliant by exemption
	75126-2001	20.26 (.798)			

1.50mm (.059") Pitch Plateau HS Dock™ PG (Power and Guide) High Speed Docking Connectors

75475/75476
Right Angle Plug
Right Angle Receptacle



Features and Benefits

- Metal-plated plastic housing provides shielding for very low crosstalk and supports signal speeds in excess of 10Gbps
- Insert molded wafers for controlled impedance within plated signal channels
- Robust guide pins to aid in blind mating
- Separate power modules to carry currents of up to 20.0A
- Rigid stiffener holds modules in place for customer specific configurations
- Four levels of mating and guide features support hot pluggable applications, ensure proper mating and provide first-mate/last-break
- RoHS Level 5 compliant

Reference Information

Product Specification: PS-75018-001
Packaging: Tray
UL File No.: E29179
CSA File No.: 1373502
Designed In: Millimeters

Electrical

Voltage: 12V DC
Current (signal wafer): 2.75A
Current (power module): 20A
Contact Resistance: 30 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1,000 Megohms min.

Mechanical

Insertion Force to PCB: 35N max. per compliant pin
Retention Force to PCB: 9N max. per compliant pin
Mating Force: 80N max.
Unmating Force: 20N min.
Durability: 100 cycles

Physical

Housing: Liquid Crystal Polymer, UL 94V-0
Contact: Copper Alloy
Plating: Contact Area—30µ" min. Select Gold
Tail Area—Tin/Lead
Underplating: Nickel
PCB Thickness: 1.80mm (.071")
Operating Temperature: -20 to +85°C

Plug

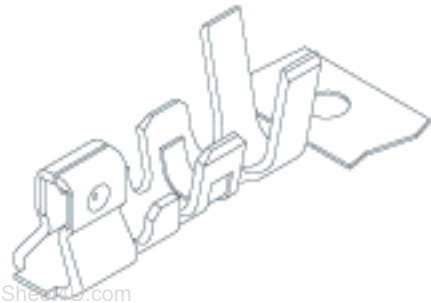
Circuits	Order No.	No. of Power Modules	No. of Guide Modules	Total Length	Lead-free
72	75475-1004	2	2	79.50 (3.130)	RoHS compliant by exemption
		*Orientation: Guide—72 signal—2 power—Guide			
144	75475-1005	6	2	156.50 (6.161)	RoHS compliant by exemption
		*Orientation: Guide—72 signal—2 power—72 signal—2 power—Guide—2 power			

Receptacle

Circuits	Order No.	No. of Power Modules	No. of Guide Modules	Total Length	Lead-free
72	75476-1004	2	2	79.50 (3.130)	RoHS compliant by exemption
		*Orientation: Guide—72 signal—2 power—Guide			
144	75476-1005	6	2	156.50 (6.161)	RoHS compliant by exemption
		*Orientation: 2 power—Guide—2 power—72 signal—2 power—72 signal—Guide			

* Orientation is associated from the inter-mating face, moving left to right

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Crimp Terminal 87421



Features and Benefits

- Low profile
- Locking tang snaps into housing window for secure retention
- Dual-point contact design
- Anti-fishhooking box design protects contact area

Reference Information

Product Specification: PS-87437
 Packaging: Reel
 Wire Style: UL1061
 UL File No.: E29179
 CSA File No.: LR19980A
 Use With: 87439 housing
 Designed In: Millimeters

Electrical

Voltage: 30V
 Current:

AWG	24	26	28	30
	3.0A	2.0A	1.5A	1.5A

Contact Resistance: 40 milliohms max.
 Dielectric Withstanding Voltage: 500V AC
 Insulation Resistance: 1000 Megohms min.

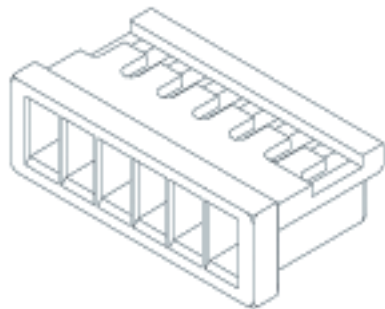
Physical

Contact: Phosphor Bronze
 Plating: Tin
 Wire Range: 24, 26, 28, 30 AWG
 Operating Temperature: -55 to +105°C
 Insulation Diameter: 1.10mm dia. max.

Order No.	Lead-free
87421-0000	Yes

www.molex.com/customer.html?seriesNumber=87421

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Housing 87439



Features and Benefits

- Sizes 2 to 15 circuits
- Standard with center locking ramp
- Locking windows secure terminal to housing
- Lead-in chamfer facilitates mating

Reference Information

Product Specification: PS-87437
 Packaging: Bag
 UL File No.: E29179
 CSA File No.: LR19980A
 Mates With: 87437 and 87438 headers
 Use With: 87421 crimp terminal
 Designed In: Millimeters

Physical

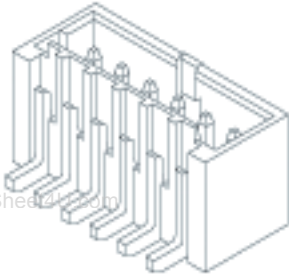
Housing: Natural glass-filled 6/6 nylon, UL 94V-0
 Operating Temperature: -55 to +105°C

Circuits	Order No.
2	87439-0200
3	87439-0300
4	87439-0400
5	87439-0500
6	87439-0600
7	87439-0700
8	87439-0800

Circuits	Order No.
9	87439-0900
10	87439-1000
11	87439-1100
12	87439-1200
13	87439-1300
14	87439-1400
15	87439-1500

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Header

87437
Vertical, SMT
Shrouded



Features and Benefits

- Sizes 2 to 15 circuits
- Compact, low-profile SMT design
- Fully shrouded to protect pins during mating/unmating
- Center keyway for secure connection to housing
- One-piece mating post and SMT tail provides coplanarity control and large soldering area
- High-temperature material withstands reflow soldering

Reference Information

Product Specification: PS-87437
Packaging: Tube or tape and reel
UL File No.: E29179
CSA File No.: LR19980A
Mates With: 87439 housing
Designed In: Millimeters

Electrical

Voltage: 350V
Current: 3.0A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 1kgf min.
Durability: 10 cycles

Physical

Housing: Beige glass-filled 4/6 nylon, UL 94V-0
Contact: Brass Alloy
Plating: 2.54mm Tin
Operating Temperature: -55 to +105°C

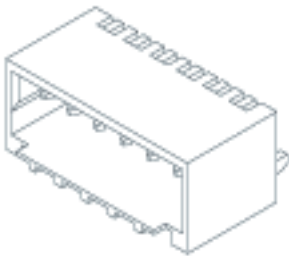
Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
2	87437-0242	87437-0243	Yes
3	87437-0342	87437-0343	
4	87437-0442	87437-0443	
5	87437-0542	87437-0543	
6	87437-0642	87437-0643	
7	87437-0742	87437-0743	
8	87437-0842	87437-0843	

Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
9	87437-0942	87437-0943	Yes
10	87437-1042	87437-1043	
11	87437-1142	87437-1143	
12	87437-1242	87437-1243	
13	87437-1342	87437-1343	
14	87437-1442	87437-1443	
15	87437-1542	87437-1543	

www.molex.com/customer.html?seriesNumber=87437

1.50mm (.059") Pitch Pico-SPOX™ Wire-to-Board Header

87438
Right Angle, SMT
Shrouded



Features and Benefits

- Sizes 2 to 15 circuits
- Compact, low-profile SMT design
- Fully shrouded to protect pins during mating/unmating
- Center keyway for secure connection to housing
- One-piece mating post and SMT tail provides coplanarity control and large soldering area
- High-temperature material withstands reflow soldering

Reference Information

Product Specification: PS-87437
Packaging: Tube or tape and reel
UL File No.: E29179
CSA File No.: LR19980A
Mates With: 87439 housing
Designed In: Millimeters

Electrical

Voltage: 350V
Current: 3.0A
Contact Resistance: 40 milliohms max.
Dielectric Withstanding Voltage: 500V AC
Insulation Resistance: 1000 Megohms min.

Mechanical

Contact Retention to Housing: 1kgf min.
Durability: 10 cycles

Physical

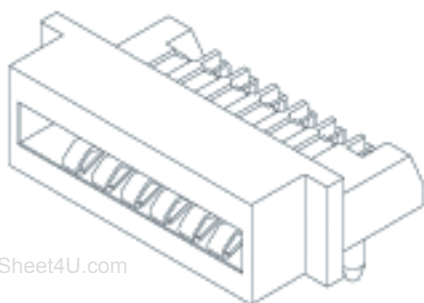
Housing: Beige glass-filled 4/6 nylon, UL 94V-0
Contact: Brass Alloy
Plating: 2.54µm Tin
Operating Temperature: -25 to + 85°C

Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
2	87438-0242	87438-0243	Yes
3	87438-0342	87438-0343	
4	87438-0442	87438-0443	
5	87438-0542	87438-0543	
6	87438-0642	87438-0643	
7	87438-0742	87438-0743	
8	87438-0842	87438-0843	

Circuits	Order No.		Lead-free
	Tube	Tape and Reel	
9	87438-0942	87438-0943	Yes
10	87438-1042	87438-1043	
11	87438-1142	87438-1143	
12	87438-1242	87438-1243	
13	87438-1342	87438-1343	
14	87438-1442	87438-1443	
15	87438-1542	87438-1543	

1.60mm (.062") Pitch Board-to-Board Receptacle

52712
Right Angle Detachable



Features and Benefits

- Size 12 circuits
- Pull tab on housing for easy mating/unmating
- PCB locking pegs

Reference Information

Mates With: 53440 plug
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A max.
Contact Resistance: 35 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

Physical

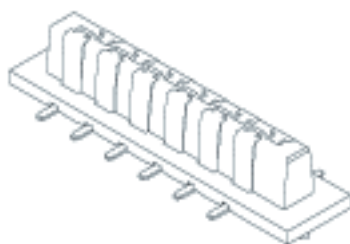
Housing: PBT, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold on contacts and Tin on solder tails
Operating Temperature: -40 to +105°C

Circuits	Order No.	Lead-free
12	52712-1219	Yes

www.molex.com/customer.html?seriesNumber=52712

1.60mm (.062") Pitch Board-to-Board Plug

53440
SMT, Vertical Detachable



Features and Benefits

- Size 12 circuits
- Tapered PCB pegs

Reference Information

Packaging: Tube or embossed tape
Mates With: 52712 receptacle
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A max.
Contact Resistance: 35 milliohms max.
Dielectric Withstanding Voltage: 500V AC/1 min.
Insulation Resistance: 500 Megohms min.

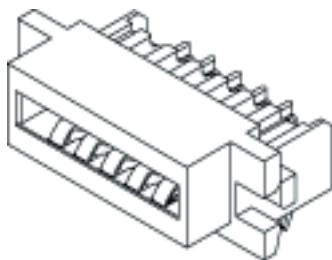
Physical

Housing: PPA, UL 94V-0
Contact: Phosphor Bronze
Plating: Gold on contacts and Tin on solder tails
Operating Temperature: -40 to +105°C

Circuits	Order No.	Lead-free
12	53440-1219	Yes

1.60 (.063") Pitch Board-to-Board Panel Detachable Receptacle

87868



Features and Benefits

- Sizes 10 and 14 circuits
- High durability, up to 10,000 cycles
- Locating peg for accurate placement on PCB

Reference Information

Product Specification: PS-87868-004
Packaging: Tray
UL File No.: E29179
CSA File No.: LR 19980
Mates With: 87869
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A
Contact Resistance: 35 milliohms max.
Dielectric Withstanding Voltage: 1250V AC/1 min.
Insulation Resistance: 500 Megohms min.

Mechanical

Mating Force: 24.50N (5.51 lb) min.
Unmating Force: 3.43N (0.77 lb) min.
Durability: 10,000 cycles

Physical

Housing: Glass-filled nylon, UL94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
PCB Thickness: 1.60mm
Operating Temperature: -30 to +85°C

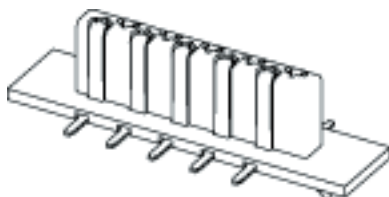
www.DataSheet4U.com

Circuits	Order No.	Lead-free
10	87868-1000	Yes
14	87868-1400	

www.molex.com/customer.html?seriesNumber=87868

1.60mm (.063") Pitch Board-to-Board Panel Detachable Header

87869



Features and Benefits

- Sizes 10 and 14 circuits
- High durability, up to 10,000 cycles
- Locating peg for accurate placement on PCB

Reference Information

Product Specification: PS-87868-004
Packaging: Tape and reel
UL File No.: E29179
CSA File No.: LR 19980
Mates With: 87868
Designed In: Millimeters

Electrical

Voltage: 125V
Current: 1.0A
Contact Resistance: 35 milliohms max.
Dielectric Withstanding Voltage: 1250V AC/1 min.
Insulation Resistance: 500 Megohms min.

Mechanical

Mating Force: 24.50N (5.51 lb) min.
Unmating Force: 3.43N (0.77 lb) min.
Durability: 10,000 cycles

Physical

Housing: Glass-filled nylon, UL94V-0
Contact: Copper Alloy
Plating: Contact Area—Select Gold
Solder Tail Area—Tin
PCB Thickness: 1.60mm
Operating Temperature: -30 to +85°C

Circuits	Order No.	Lead-free
10	87869-1000	Yes
14	87869-1400	