

**MDA920A1
thru
MDA920A9**

Designers Data Sheet

MINIATURE INTEGRAL DIODE ASSEMBLIES

... passivated, diffused-silicon dice interconnected and transfer molded into voidless hybrid rectifier circuit assemblies.

- Large Inrush Surge Capability -- 45 A (For 1.0 Cycle)
- Efficient Thermal Management Provides Maximum Power Handling in Minimum Space

Designers Data for "Worst Case" Conditions

The Designers Data Sheet permits the design of most circuits entirely from the information presented. Limit curves -- representing boundaries on device characteristics -- are given to facilitate "worst case" design.

MAXIMUM RATINGS

Rating (Per Leg)	Symbol	A1	A2	A3	A4	A5	A6	A7	A8	A9	Unit
Peak Repetitive Reverse Voltage	V _{RRM}										Volts
Working Peak Reverse Voltage	V _{RWM}	25	50	100	200	300	400	600	800	1000	Volts
DC Blocking Voltage	V _R										Volts
DC Output Voltage	V _{dc}	15	30	62	124	185	250	380	500	620	Volts
Resistive Load	V _{dc}	25	50	100	200	300	400	600	800	1000	Volts
Capacitive Load	V _{dc}	25	50	100	200	300	400	600	800	1000	Volts
Sine Wave RMS Input Voltage	V _{R(RMS)}	18	35	70	140	210	280	420	560	700	Volts
Average Rectified Forward Current (single phase bridge resistive load, 60 Hz, see Figure 6, T _A = 50°C)	I _O	1.5									Amp
Non-Repetitive Peak Surge Current, (see Figure 2) rated load, T _J = 175°C	I _{FSM}	45 for 1 cycle									Amp
Operating and Storage Junction Temperature Range	T _J , T _{stg}	-55 to +175									°C

ELECTRICAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Maximum Instantaneous Forward Voltage Drop (Per Leg) (I _F = 2.4 Amp, T _J = 25°C) Figure 1	V _F	1.2	Volts
Maximum Reverse Current (Rated dc Voltage across ac terminals, T _J = 25°C)	I _R	20	µA

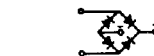
THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Effective Bridge Thermal Resistance, Junction to Ambient (Full-Wave Bridge Operation, Typical Printed Circuit Board Mounting)	R _{θJA}	50	°C/W

MECHANICAL CHARACTERISTICS

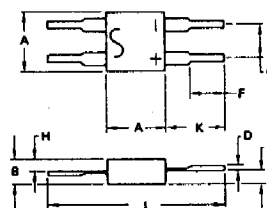
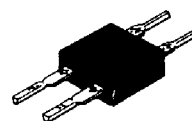
CASE: Transfer-molded plastic encapsulation.
POLARITY: Terminal-designation embossed on case
+DC output
-DC output
~AC input

MOUNTING POSITION: Any
WEIGHT: 1.0 gram (approx)
TERMINALS: Readily solderable connections, corrosion resistant.



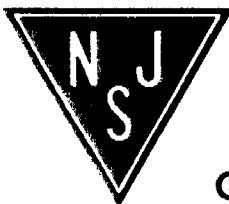
**SINGLE-PHASE
FULL-WAVE BRIDGE**

**1.5 AMPERES
25-1000 VOLTS**



- NOTES:**
1. LEAD DIM "D" TO BE MEASURED WITHIN "F"
2. LEADS FORMED TO FIT INTO HOLE 0.94 mm (0.037) MIN.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	5.10	6.73	0.240	0.265
B	2.29	2.79	0.090	0.110
D	0.51	0.94	0.020	0.037
F	3.66	6.35	0.140	0.250
H	3.81	3.94	0.145	0.155
K	1.62	1.91	0.060	0.075
L	11.93	17.25	0.470	0.680



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