



Micro Commercial Components

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# SK102 THRU SK1010

## Features

- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)
- For Surface Mount Applications
- High Current Capability With Low Forward Voltage
- Easy Pick And Place
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1

## Maximum Ratings

- Operating Temperature: -55°C to +125°C
- Storage Temperature: -55°C to +150°C
- Typical Thermal Resistance; 18°C/W Junction To Lead

MST Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SK102	SK102	20V	14V	20V
SK103	SK103	30V	21V	30V
SK104	SK104	40V	28V	40V
SK1045	SK1045	45V	31.5V	45V
SK105	SK105	50V	35V	50V
SK106	SK106	60V	42V	60V
SK108	SK108	80V	56V	80V
SK1010	SK1010	100V	70V	100V

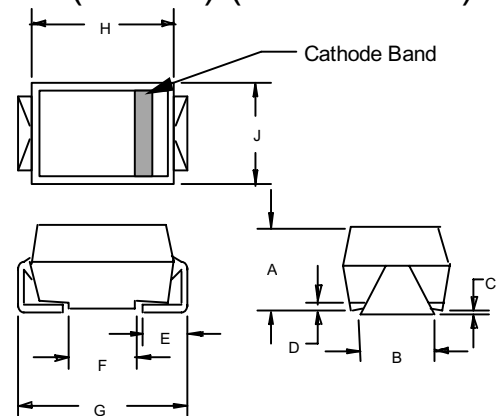
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10.0A	$T_L = 95^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	250A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	.65V .85V	$I_{FM} = 10.0A;$ $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	1mA 20mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	500pF	Measured at 1.0MHz, $V_R=4.0V$

Note: 1. High Temperature Solder Exemptions Applied, see EU Directive Annex 7.

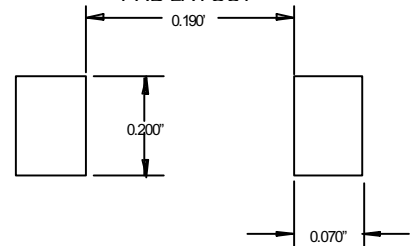
## 10 Amp Schottky Rectifier 20 to 100 Volts

### DO-214AB (HSMC) (Round Lead)



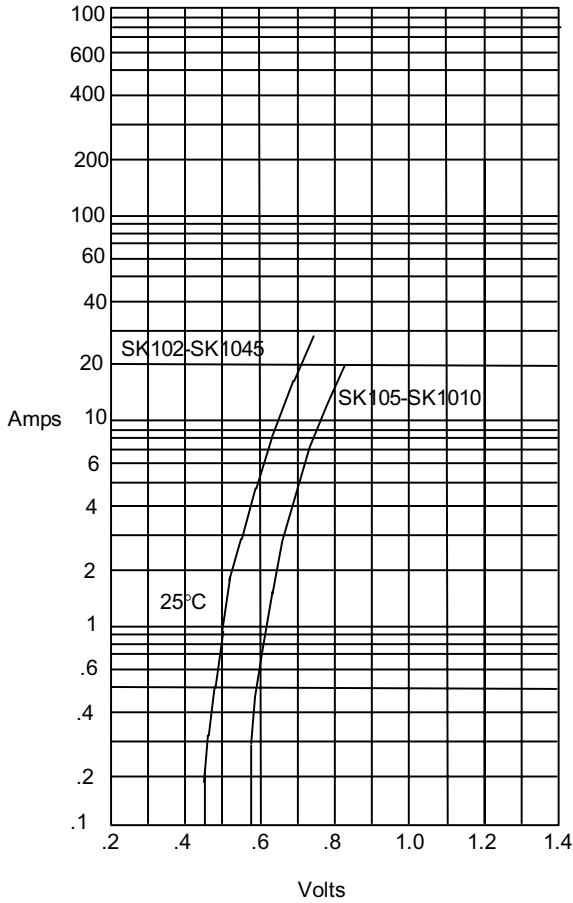
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.200	.214	5.08	5.43	
B	.177	.203	4.70	5.30	
C	.002	.005	.05	.13	
D	—	.02	—	.51	
E	.047	.056	1.20	1.42	
F	.168	.179	4.27	4.55	
G	.309	.322	7.85	8.18	
H	.239	.243	6.08	6.18	
J	.234	.240	5.95	6.10	

### SUGGESTED SOLDER PAD LAYOUT

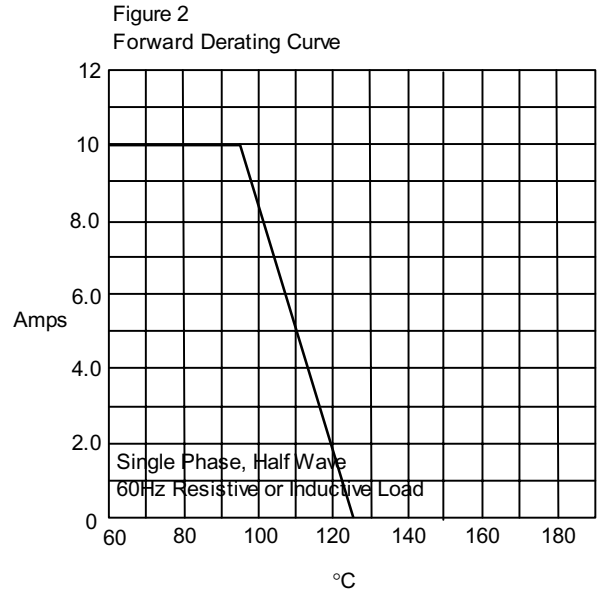


# SK102 thru SK1010

Figure 1  
Typical Forward Characteristics

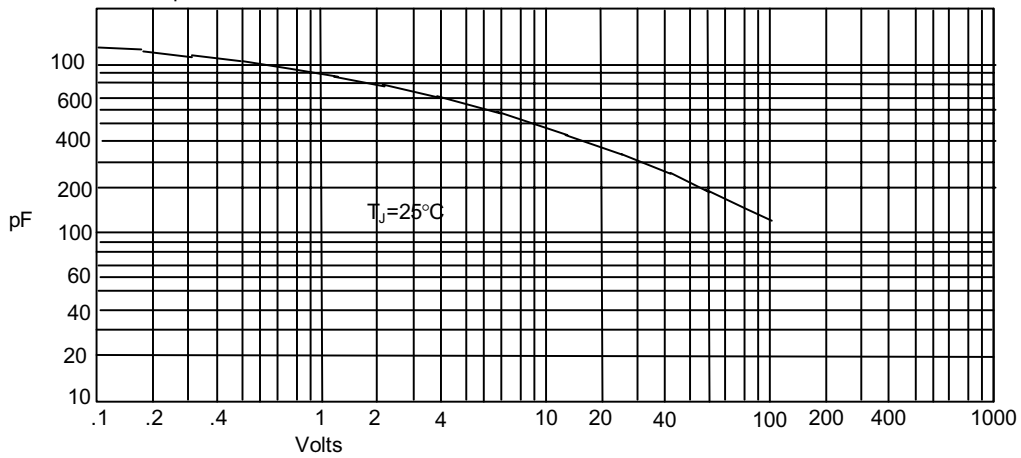


Instantaneous Forward Current - Amperes *versus* Instantaneous Forward Voltage - Volts



Average Forward Rectified Current - Amperes *versus* Lead Temperature - C

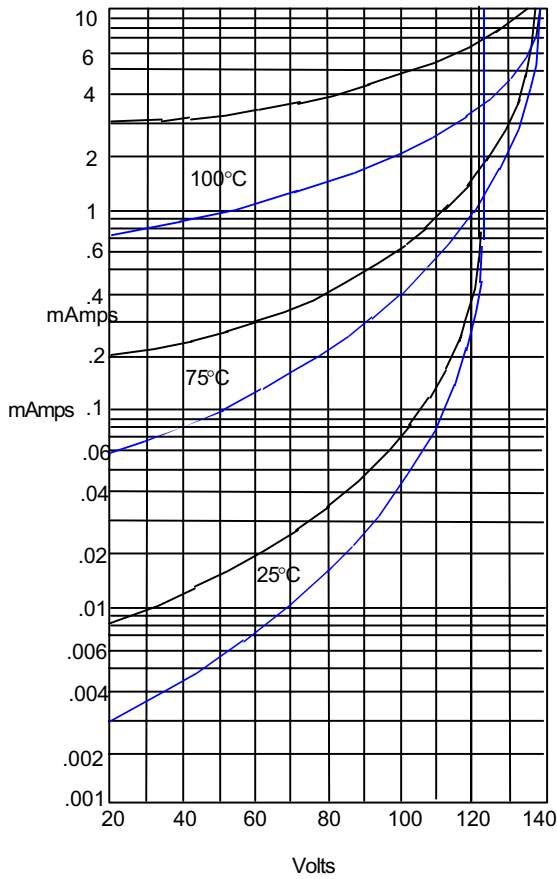
Figure 3  
Junction Capacitance



Junction Capacitance - pF *versus* Reverse Voltage - Volts

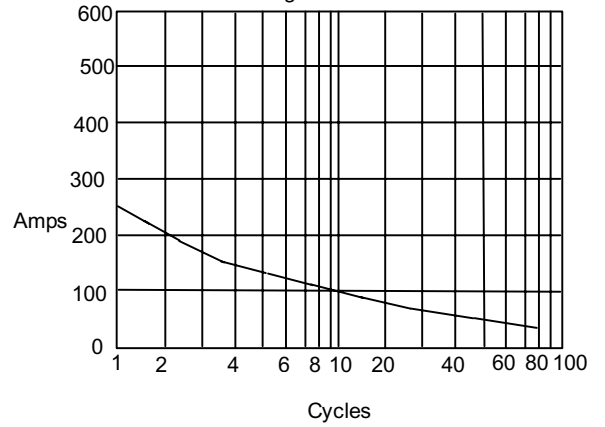
# SK102 thru SK1010

Figure 4  
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 5  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles

SK102-SK1045	— (Black line)
SK105-SK1010	— (Blue line)



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## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;1.5Kpcs/Reel

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