

### **Features**

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- · Reverse Energy Tested and Guard Ring Protection
- · High Current Capability and Low Forward Voltage
- Extremely Low Thermal Resistance
- Halogen Free. "Green" Device (Note 2)

## **Maximum Ratings**

- Operating Junction Temperature Range:-55°C to +125°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance:15°C/W Junction to Lead

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SK12-L	SK12	20V	14V	20V
SK13-L	SK13	30V	21V	30V
SK14-L	SK14	40V	28V	40V
SK15-L	SK15	50V	35V	50V
SK16-L	SK16	60V	42V	60V
SK18-L	SK18	80V	56V	80V
SK110-L	SK110	100V	70V	100V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

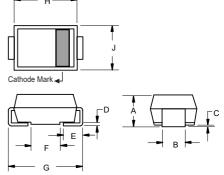
Average Forward Current	I <sub>F(AV)</sub>	1.0A	T <sub>L</sub> =75°C		
Peak Forward Surge Current	I <sub>FSM</sub>	30A	8.3ms,Half Sine		
Maximum Instantaneous Forward Voltage SK12-SK14 SK15-SK16 SK18-SK110	V <sub>F</sub>	0.5V 0.72V 0.85V	I <sub>FM</sub> =1.0A; T <sub>J</sub> =25°C		
Maximum DC Reverse Current at Rated DC Blocking Voltage	I <sub>R</sub>	0.1mA 10mA	T <sub>J</sub> =25°C T <sub>J</sub> =100°C		
Typical Junction Capacitance SK12 SK13-SK110	CJ	110pF 30pF	Measured at 1.0MHz V <sub>R</sub> =4.0V		

<sup>\*</sup>Pulse test: Pulse width 300 µsec, Duty cycle 2%

- 1. High Temperature Solder Exemptions Applied, See EU Directive Annex Notes 7a.
- 2. Halogen free "Green" products are defined as those which contain <900 ppm bromine,
- <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

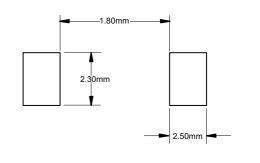
# 1 Amp Schottky Rectifier 20 to 100 Volts

## SMB (DO-214AA) ---- ⊩----|



DIMENSIONS						
DIM	INCHES		MM		NOTE	
	MIN	MAX	MIN	MAX	NOTE	
Α	0.079	0.103	2.00	2.62		
В	0.075	0.087	1.91	2.21		
C	0.002	0.008	0.05	0.20		
D	0.006	0.012	0.15	0.31		
Е	0.030	0.060	0.76	1.52		
F	0.065	0.091	1.65	2.32		
G	0.200	0.220	5.08	5.59		
Н	0.160	0.191	4.06	4.85		
J	0.130	0.155	3.30	3.94		

#### Suggested Solder Pad Layout





## **Curve Characteristics**

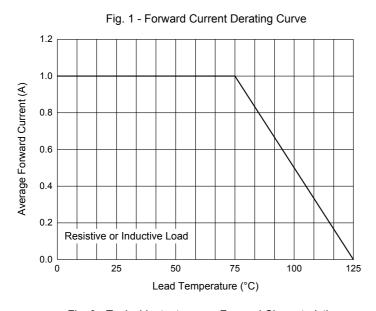


Fig. 3 - Typical Instantaneous Forward Characteristics

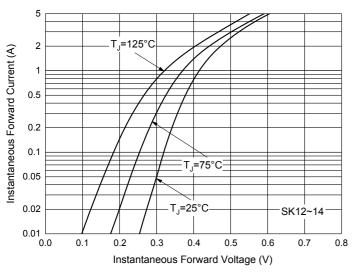


Fig. 5 - Typical Instantaneous Forward Characteristics

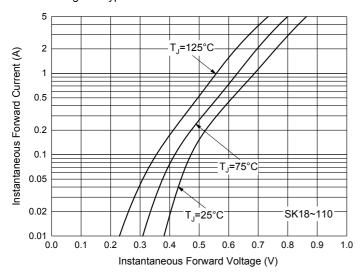


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge
Current

35

20

20

8.3 ms Single Half Sine-Wave
0
1 10 100 100

Fig. 4 - Typical Instantaneous Forward Characteristics

Number of Cycles at 60 Hz

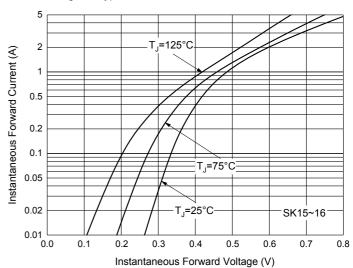
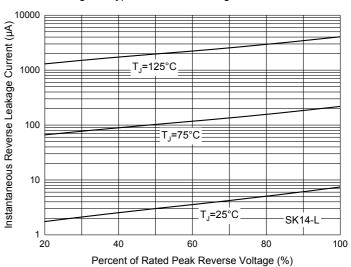


Fig. 6 - Typical Reverse Leakage Characteristics





## **Curve Characteristics**

Fig. 7 - Typical Reverse Leakage Characteristics

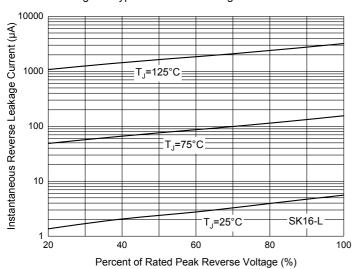
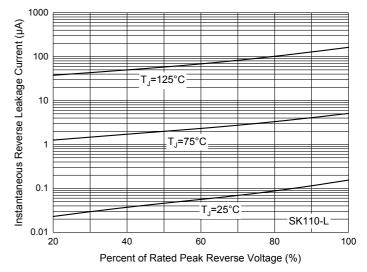


Fig. 8 - Typical Reverse Leakage Characteristics





## **Ordering Information**

Device	Packing	
SK12-LTP~SK110-LTP	Tape&Reel: 3Kpcs/Reel	

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