



**THE DATASHEET OF
MB90F387SPMT-GS-9002**



Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- For Surface Mount Applications
- Extremely Low Thermal Resistance
- Halogen Free. "Green" Device (Note 2)
- High Current Capability With Low Forward Voltage
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range:SK32B-L~SK34B-L: -55°C to +125°C
- Operating Junction Temperature Range:SK35B-L~SK36B-L: -55°C to +150°C
- Operating Junction Temperature Range:SK38B-L~SK310B-L: -55°C to +175°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 10°C/W Junction to Lead
- Typical Thermal Resistance: 20°C/W Junction to Case
- Typical Thermal Resistance: 55°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SK32B-L	SK32B	20V	14V	20V
SK33B-L	SK33B	30V	21V	30V
SK34B-L	SK34B	40V	28V	40V
SK35B-L	SK35B	50V	35V	50V
SK36B-L	SK36B	60V	42V	60V
SK38B-L	SK38B	80V	56V	80V
SK310B-L	SK310B	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

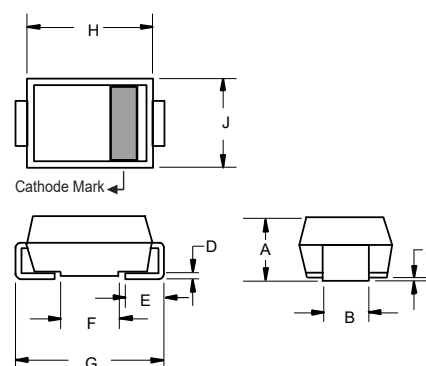
Average Forward Current	$I_{F(AV)}$	3.0A	See Fig. 1
Peak Forward Surge Current	I_{FSM}	100A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage SK32B-L~SK34B-L SK35B-L~SK36B-L SK38B-L~SK310B-L	V_F	0.50V 0.75V 0.85V	$I_{FM}=3.0A$; $T_J=25°C^*$
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.1mA 10mA	$T_J=25°C$ $T_J=100°C$
Typical Junction Capacitance SK32B-L~SK34B-L SK35B-L~SK36B-L SK38B-L~SK310B-L	C_J	210pF 160pF 125pF	Measured at 1.0MHz, $V_R=4.0V$

*Pulse test: Pulse width 200 μ sec, Duty cycle 2%

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

3 Amp Schottky Rectifier 20 to 100 Volts

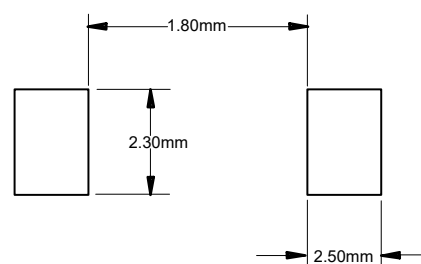
SMB (DO-214AA)



DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.079	0.103	2.00	2.62	
B	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	
E	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	
H	0.160	0.191	4.06	4.85	
J	0.130	0.155	3.30	3.94	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

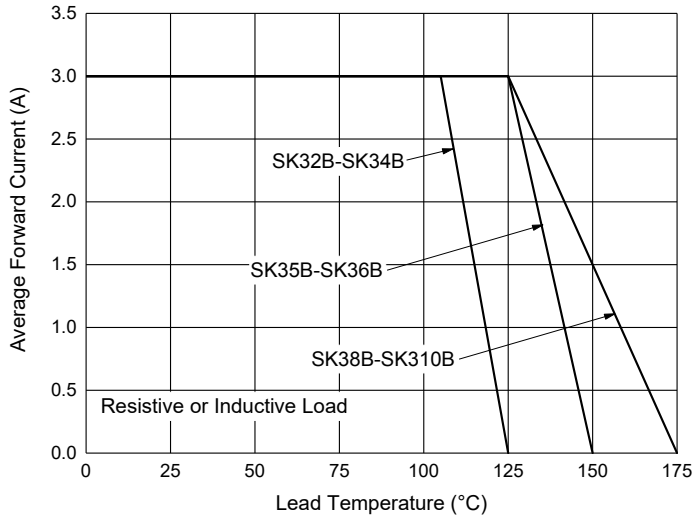


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

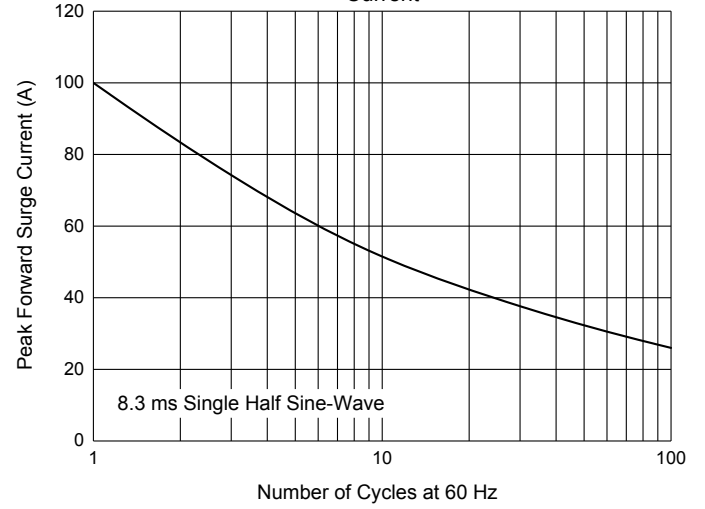


Fig. 3 - Typical Instantaneous Forward Characteristics

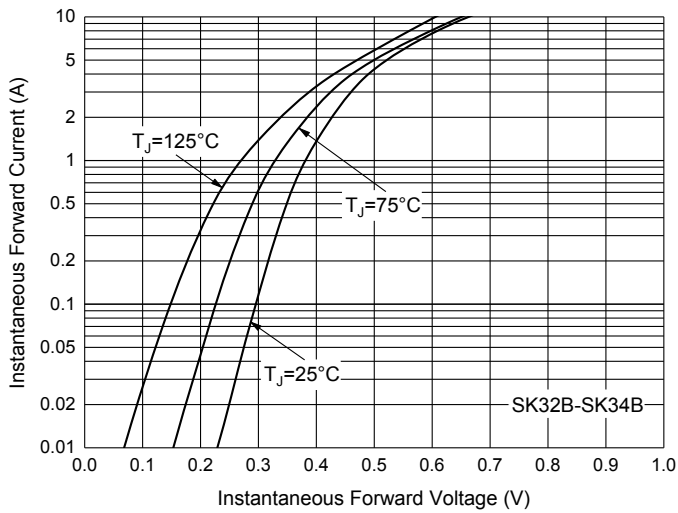


Fig. 4 - Typical Instantaneous Forward Characteristics

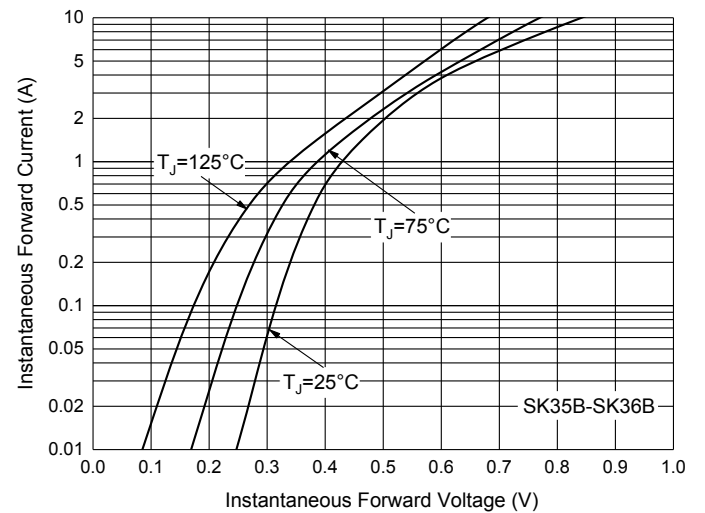


Fig. 5 - Typical Instantaneous Forward Characteristics

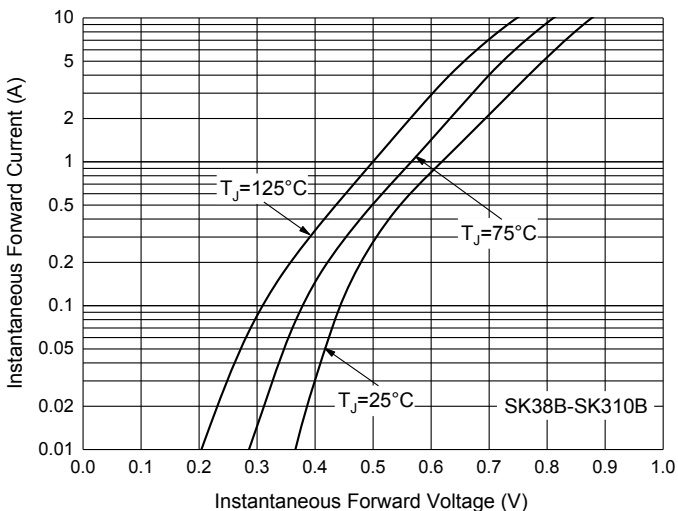
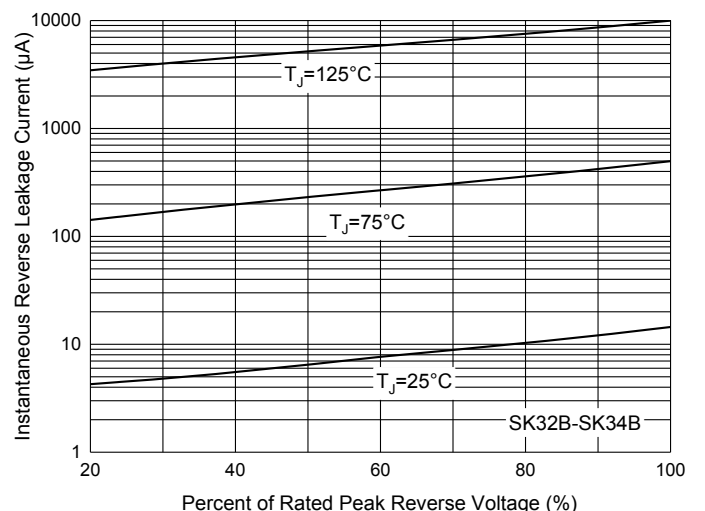


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Reverse Leakage Characteristics

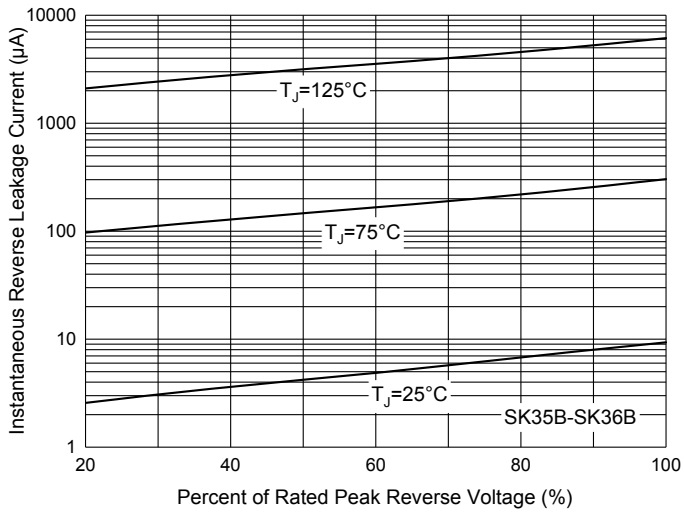


Fig. 8 - Typical Reverse Leakage Characteristics

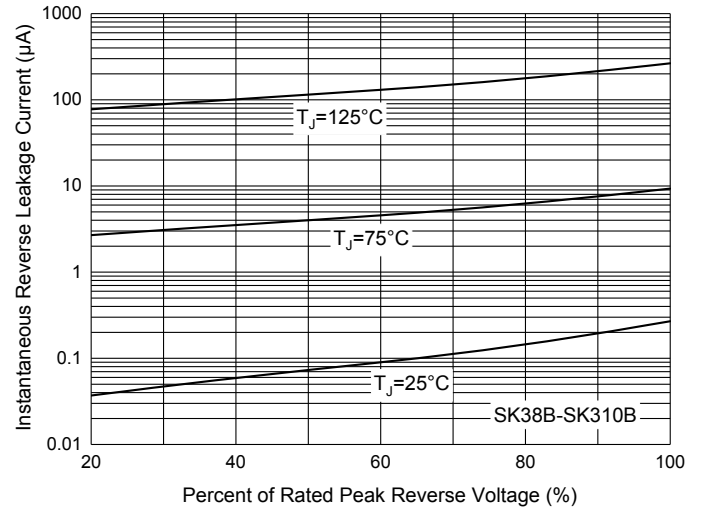
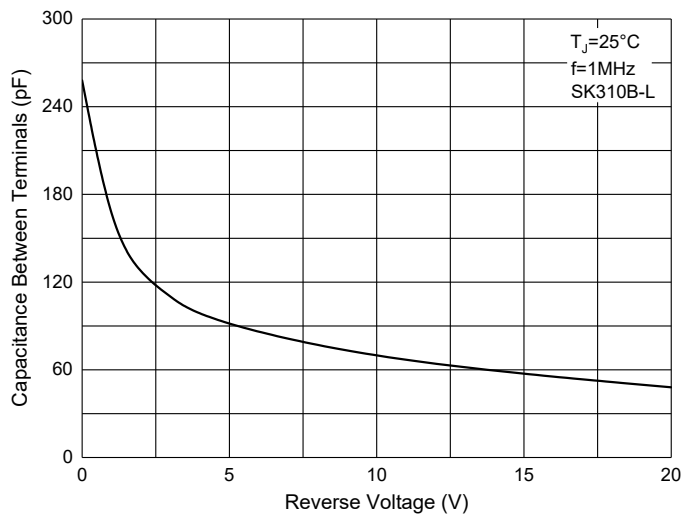


Fig. 9 - Capacitance Characteristics



Ordering Information

Device	Packing
SK32B-LTP~SK310B-LTP	Tape&Reel: 3Kpcs/Reel

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