	E502650

1 Amp Surface Mount Schottky Bridge Rectifier 20 to 100 Volts

Features

- Lead Free Finish/Rohs Compliant (Note1) ("P"Suffix Designates Compliant. See Ordering Information)
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Teminals: Plated Leads Solderable Per MIL-STD-750,Method 2026
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

Maximum Ratings

- Operating Junction Temperature Range(MB12S~MB14S): -55°C to +125°C
- Operating Junction Temperature Range(MB16S~MB110S): -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance(Note2): 28°C/W Junction to Lead
- Typical Thermal Resistance(Note2): 88°C/W Junction to Ambient

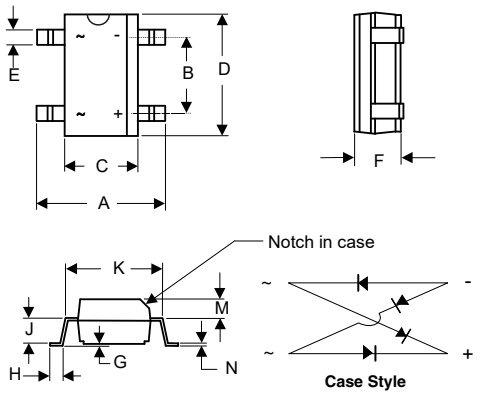
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MB12S	MB12S	20V	14V	20V
MB14S	MB14S	40V	28V	40V
MB16S	MB16S	60V	42V	60V
MB18S	MB18S	80V	56V	80V
MB110S	MB110S	100V	70V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1A	T_A= 75°C
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage MB12S~MB14S MB16S MB18S~MB110S	V_F	0.50V 0.70V 0.85V	I_{FM} = 1A ; T_A= 25°C
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.1mA 10mA	T_A = 25°C T_A = 100°C

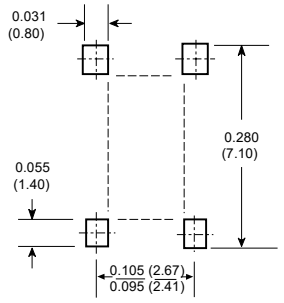
Note: 1. High Temperature Solder Exemption Applied, See EU Directive Annex Notes 7a.
2. Thermal Resistance form Junction to Ambient and from Junction to Lead P.C.B. Mounted on 0.2*0.2"(5.0*5.0mm) Copper Pad Areas.

MBS-1



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.252	0.276	6.40	7.00	
B	0.095	0.106	2.41	2.70	
C	0.142	0.165	3.60	4.20	
D	0.179	0.195	4.55	4.95	
E	0.019	0.031	0.50	0.80	
F	0.090	0.106	2.30	2.70	
G	0.002	0.008	0.05	0.20	
H	0.027	0.043	0.70	1.10	
J	0.058	0.062	1.47	1.57	
K	0.195	0.205	4.95	5.21	
M	0.039	0.049	0.99	1.24	
N	0.006	0.016	0.15	0.41	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

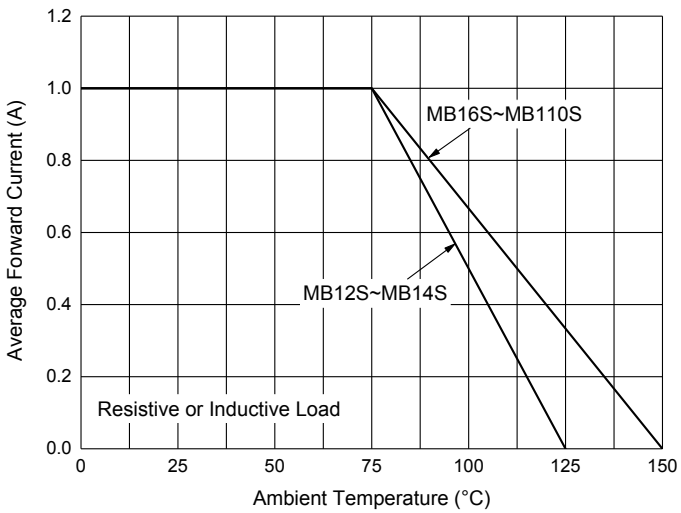


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

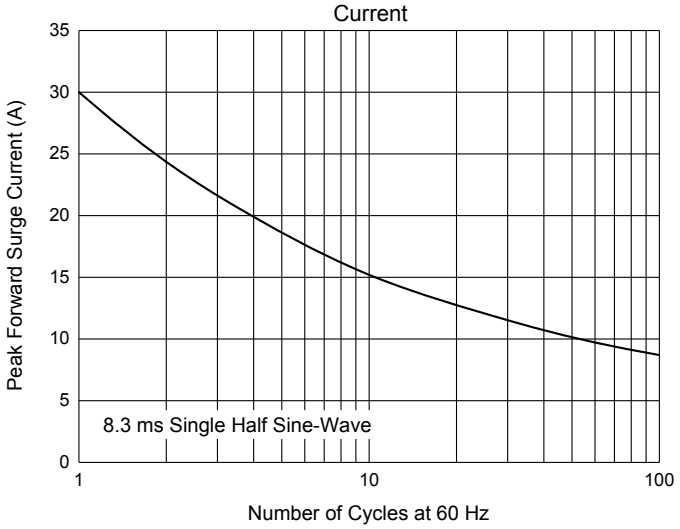


Fig. 3 - Typical Instantaneous Forward Characteristics

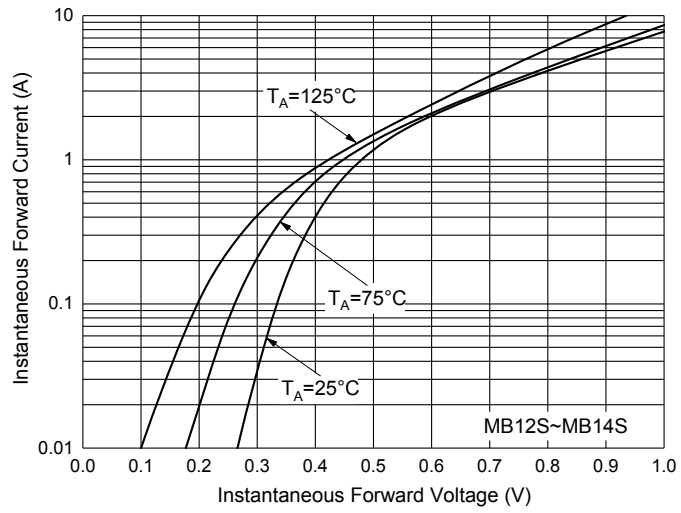


Fig. 4 - Typical Instantaneous Forward Characteristics

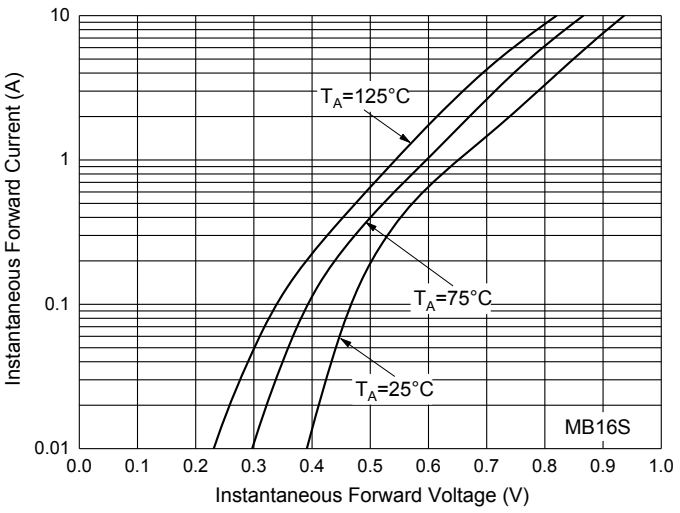


Fig. 5 - Typical Instantaneous Forward Characteristics

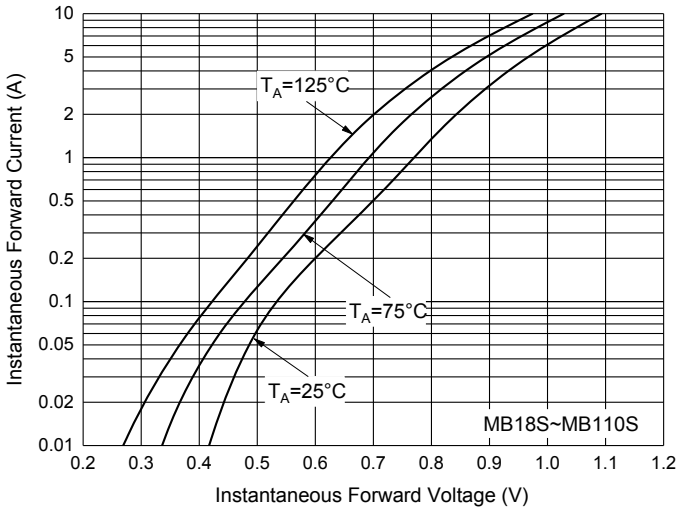
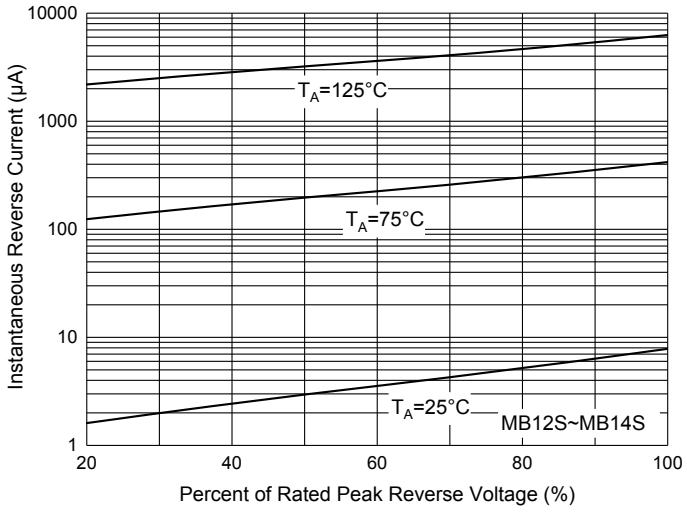


Fig. 6 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 7 - Typical Reverse Leakage Characteristics

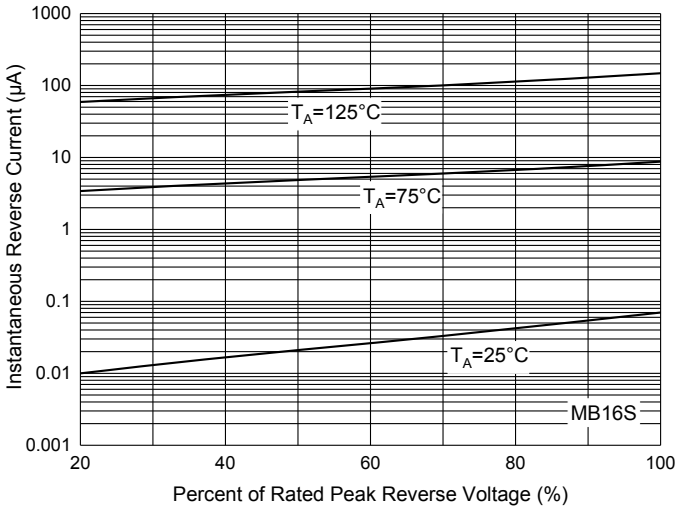
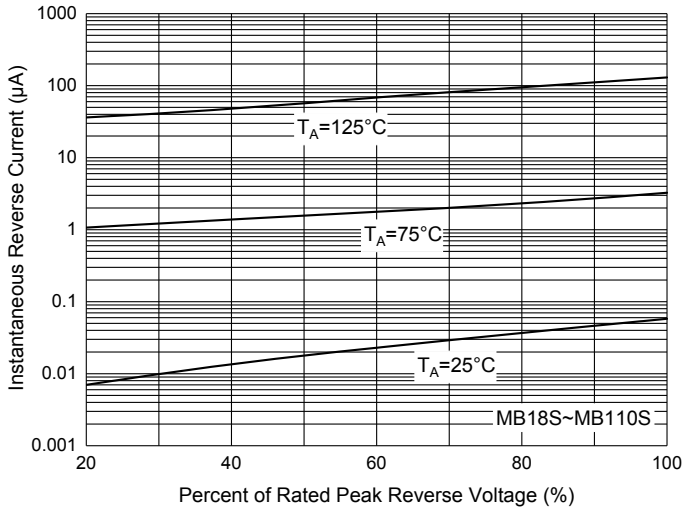


Fig. 8 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel:3Kpcs/Reel

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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