

Features

- Lead Free Finish/RoHS Compliant (Note1) ("P" Suffix Designates Compliant. See Ordering Information)
- Glass Passivated Chip Junction
- Low Profile Package
- For Surface Mount Applications
- High Forward Surge Capability
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 2)

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance(Note 3): 15°C/W Junction to Case
- Typical Thermal Resistance(Note 3): 20°C/W Junction to Lead
- Typical Thermal Resistance(Note 3): 60°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
FR4MBFL	FR4M	1000V	700V	1000V

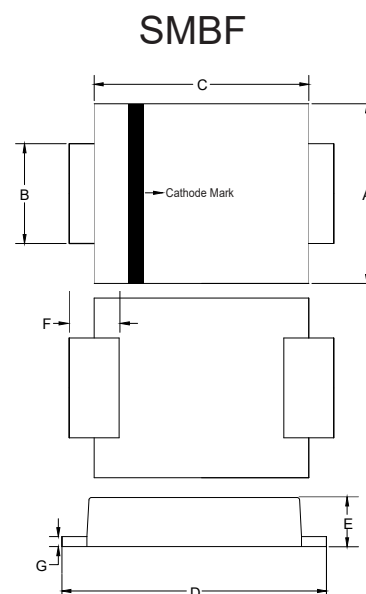
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	4.0A	$T_L=55^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	120A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	1.30V	$I_F=4.0\text{A}; T_J=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0 μA 100 μA	$T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$
Maximum Reverse Recovery Time	t_{rr}	500ns	$I_F=0.5\text{A}; I_R=1.0\text{A}; I_{rr}=0.25\text{A}$
Typical Junction Capacitance	C_J	30pF	Measured at 1.0MHz $V_R=4.0\text{V}$

Note:

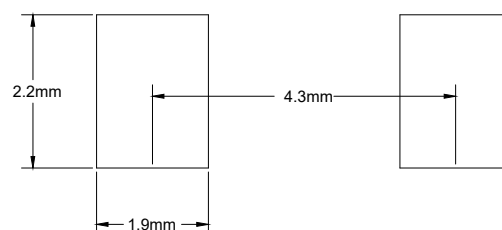
1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. High Temperature Solder Exemptions Applied, See EU Directive Annex 7a.
3. Mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas.

4.0 Amp Fast Recovery Rectifier 1000 Volts



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.134	0.150	3.40	3.80	
B	0.075	0.083	1.90	2.10	
C	0.163	0.175	4.15	4.45	
D	0.201	0.220	5.10	5.60	
E	0.041	0.061	1.05	1.55	
F	0.028	0.053	0.70	1.35	
G	0.006	0.010	0.15	0.25	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

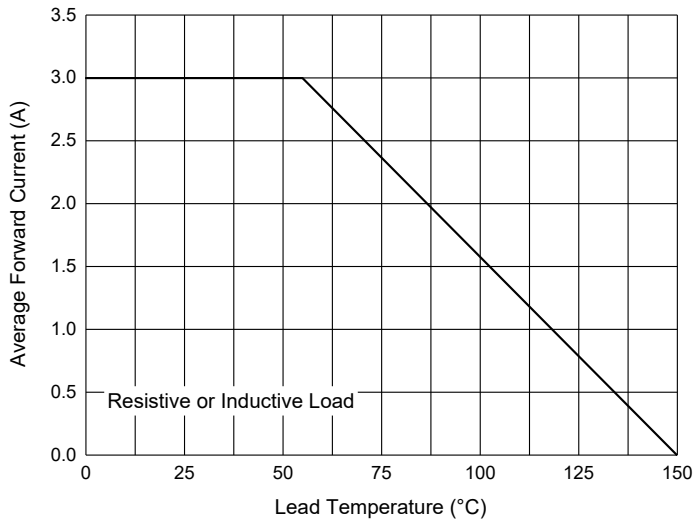


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

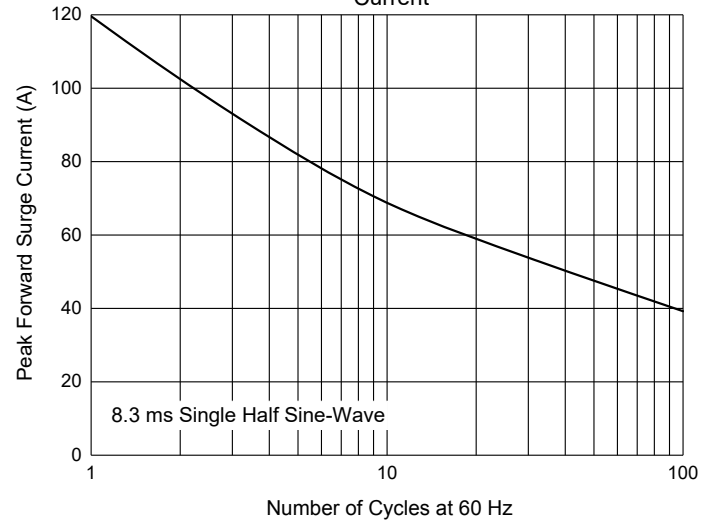


Fig. 3 - Typical Instantaneous Forward Characteristics

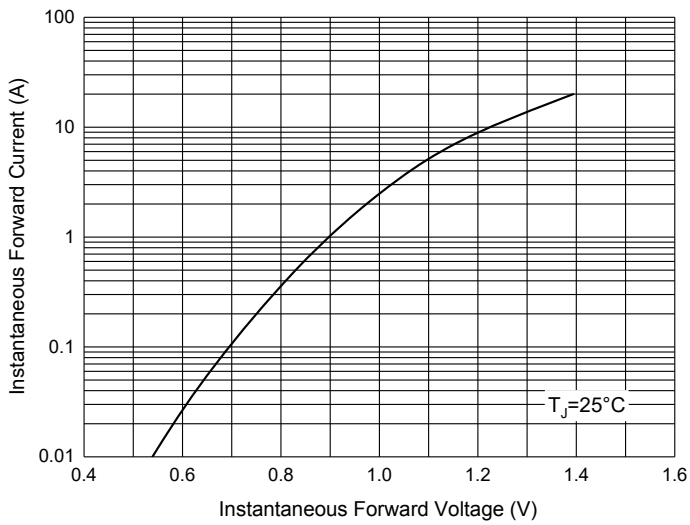
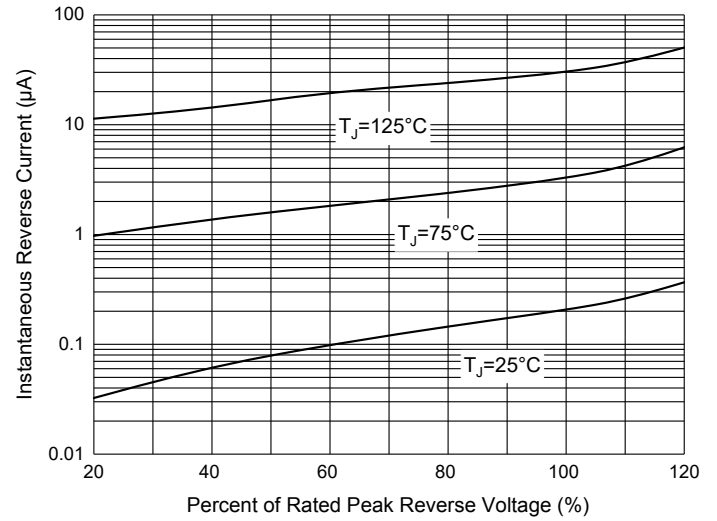


Fig. 4 - Typical Reverse Characteristics



Ordering Information

Device	Packing
FR4MBFL-TP	Tape&Reel: 5Kpcs/Reel

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