

	E502650
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Features

- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant (Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Surface Mount Package
- Low Profile Package

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Typical Thermal Resistance: 10°C/W Junction to Case
- Typical Thermal Resistance: 15°C/W Junction to Lead
- Typical Thermal Resistance: 40°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SDB151	SDB151	50V	35V	50V
SDB152	SDB152	100V	70V	100V
SDB153	SDB153	200V	140V	200V
SDB154	SDB154	400V	280V	400V
SDB155	SDB155	600V	420V	600V
SDB156	SDB156	800V	560V	800V
SDB157	SDB157	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

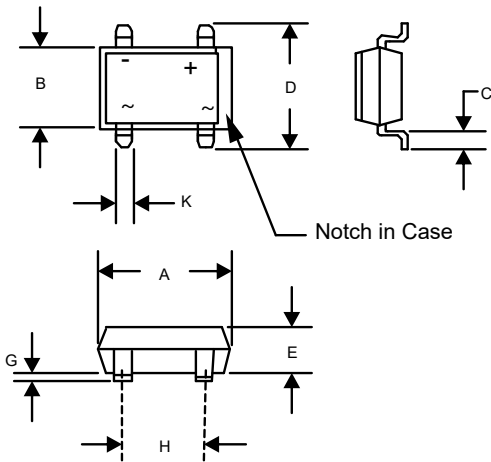
Average Forward Current	$I_{F(AV)}$	1.5A	See Fig. 1
Peak Forward Surge Current	I_{FSM}	50A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	1.1V	$I_{FM} = 1.5A;$ $T_A = 25^\circ C$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0µA 1.0mA	$T_A = 25^\circ C;$ $T_A = 100^\circ C$
Typical Junction Capacitance	C_J	25pF	Measured at 1.0MHz, $V_R=4.0V$
Rating For Fusing	I^2t	10.3A ² s	$t < 8.3ms$

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 Exemption Applied, see EU Directive Annex Notes 7a.

1.5 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

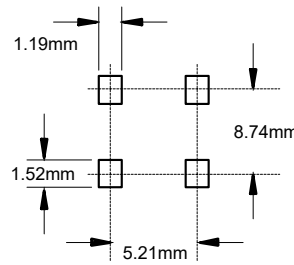
SDB-1



Notch in Case

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.316	0.335	8.05	8.51	
B	0.245	0.255	6.20	6.50	
C	0.040	0.060	1.02	1.50	
D	0.360	0.410	9.40	10.40	
E	0.102	0.130	2.60	3.30	
G	0.003	0.013	0.076	0.33	
H	0.195	0.205	5.00	5.20	
K	0.038	0.047	1.00	1.20	

Suggested Solder Pad Layout



Curve Characteristics

Fig. 1 - Forward Current Derating Curve

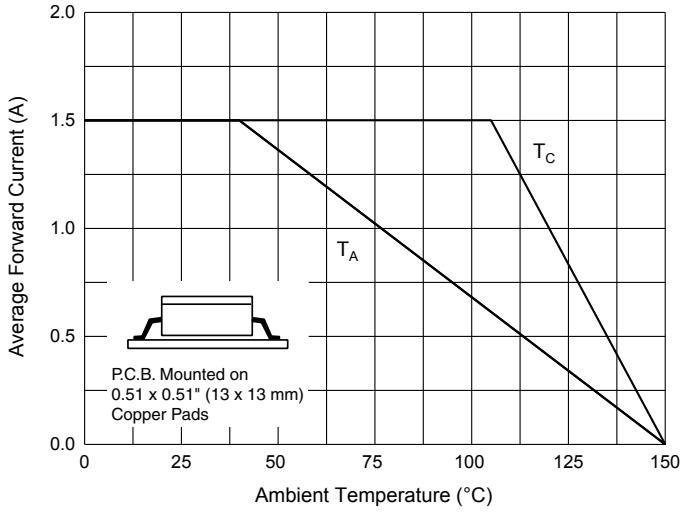


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

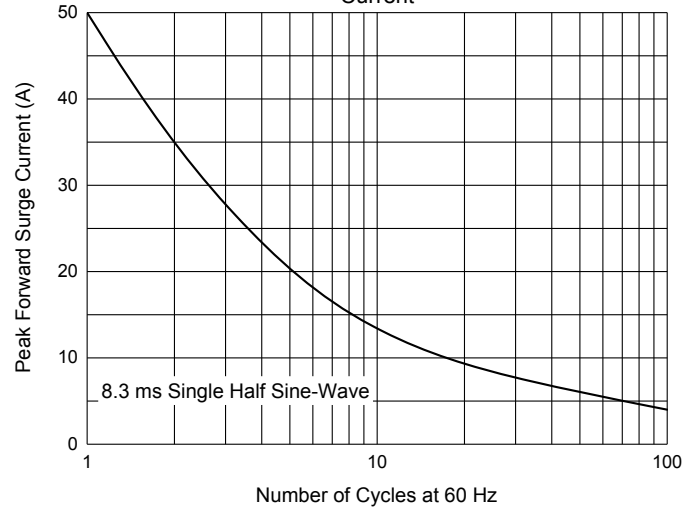


Fig. 3 - Typical Instantaneous Forward Characteristics

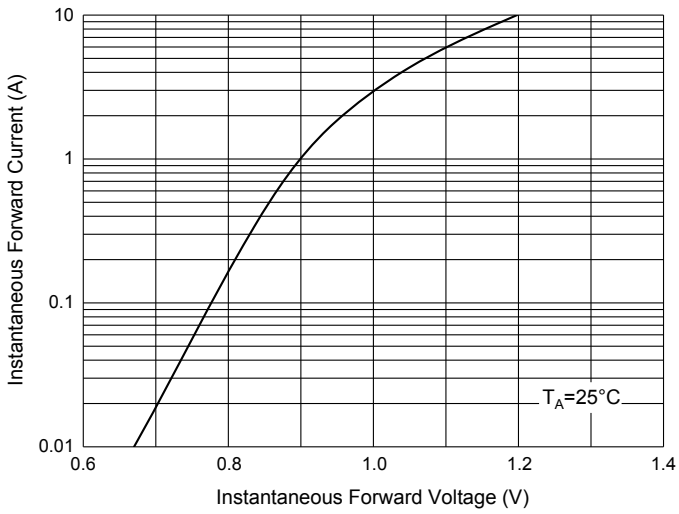
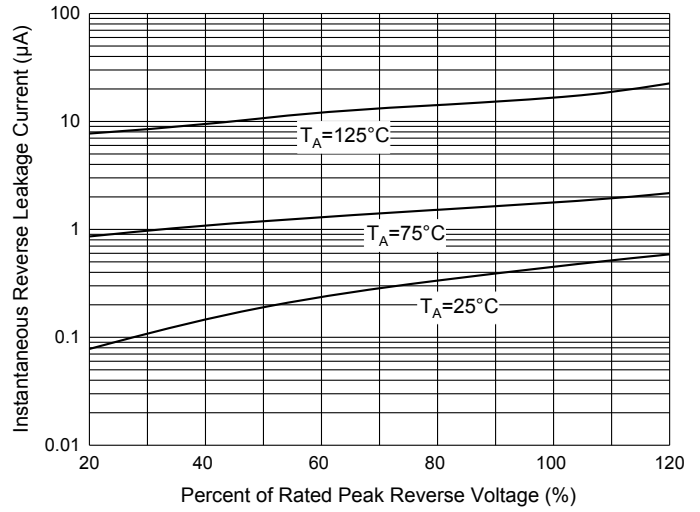


Fig. 4 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel;1.5Kpcs/Reel
Part Number-BP	Tube:50pcs/Tube,5K/Box,20K/Ctn;

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