

## Features

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

## Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- 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
SDB151L	SDB151	50V	35V	50V
SDB152L	SDB152	100V	70V	100V
SDB153L	SDB153	200V	140V	200V
SDB154L	SDB154	400V	280V	400V
SDB155L	SDB155	600V	420V	600V
SDB156L	SDB156	800V	560V	800V
SDB157L	SDB157	1000V	700V	1000V

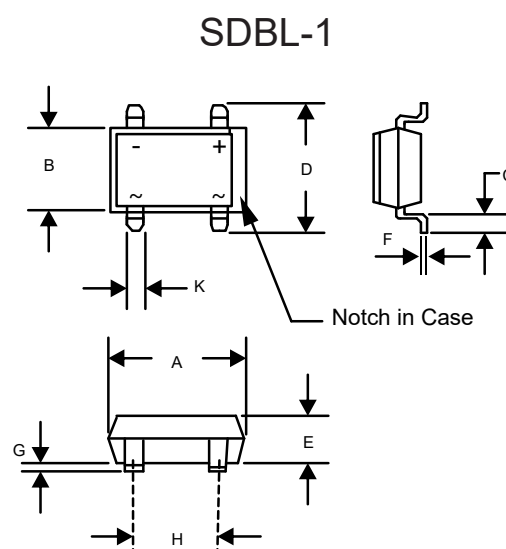
## Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.5A	$T_A = 40^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	50A	8.3ms, Half Sine
Rating for Fusing	$I^2t$	10.375A <sup>2</sup> S	$t < 8.3\text{ms}$
Maximum Instantaneous Forward Voltage	$V_F$	1.1V	$I_{FM} = 1.5\text{A}$ $T_J = 25^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	10µA 1.0mA	$T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	25pF	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.

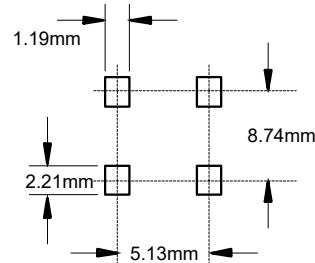
2. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7a.

# 1.5 Amp Single Phase Bridge Rectifier 50 to 1000 Volts



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.320	0.335	8.12	8.51	
B	0.244	0.256	6.20	6.50	
C	0.040	0.060	1.02	1.53	
D	0.366	0.413	9.30	10.50	
E	0.093	0.096	2.35	2.45	
F	0.006	0.013	0.15	0.33	
G	0.003	0.013	0.076	0.33	
H	0.195	0.205	5.00	5.20	
K	0.037	0.047	0.95	1.20	

### Suggested Solder Pad Layout



**Curve Characteristics**

Fig. 1 - Forward Current Derating Curve

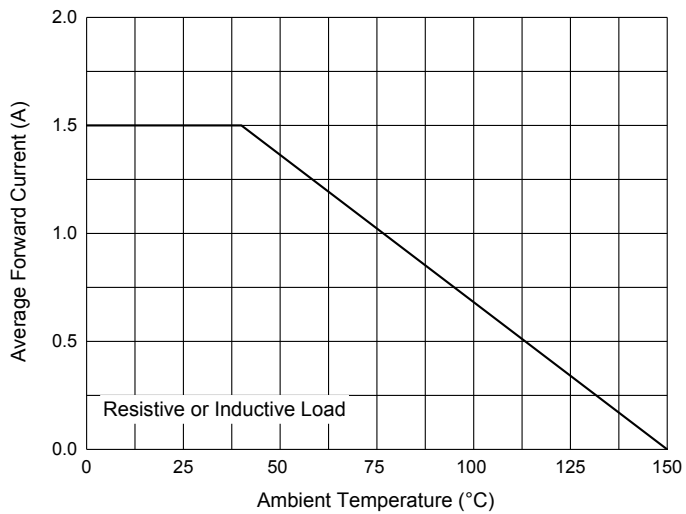


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

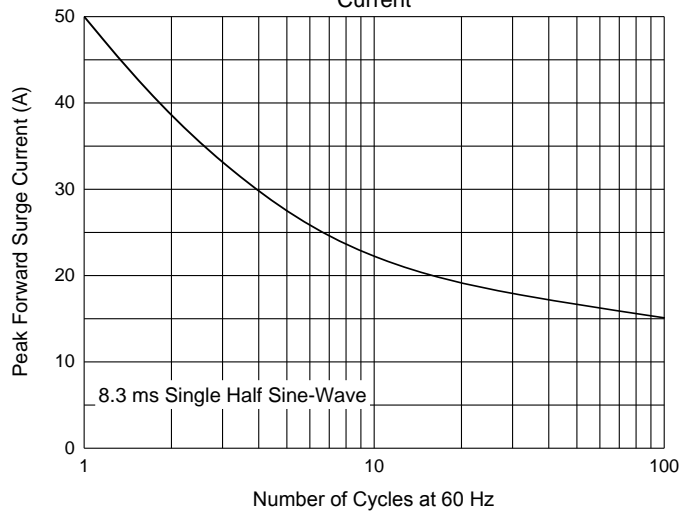


Fig. 3 - Typical Instantaneous Forward Characteristics

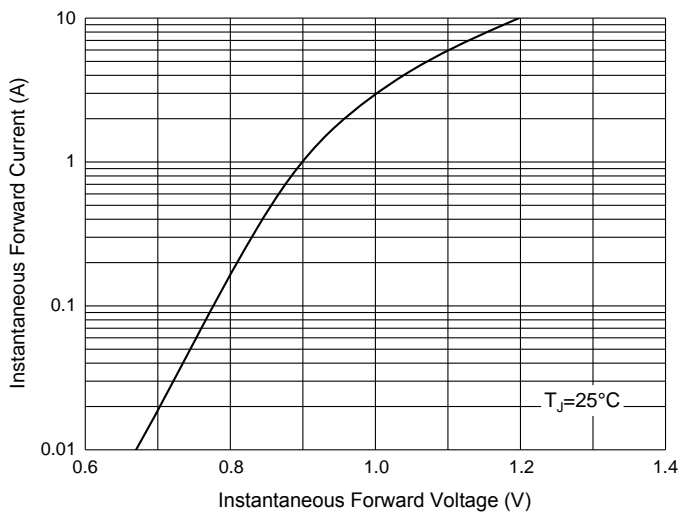
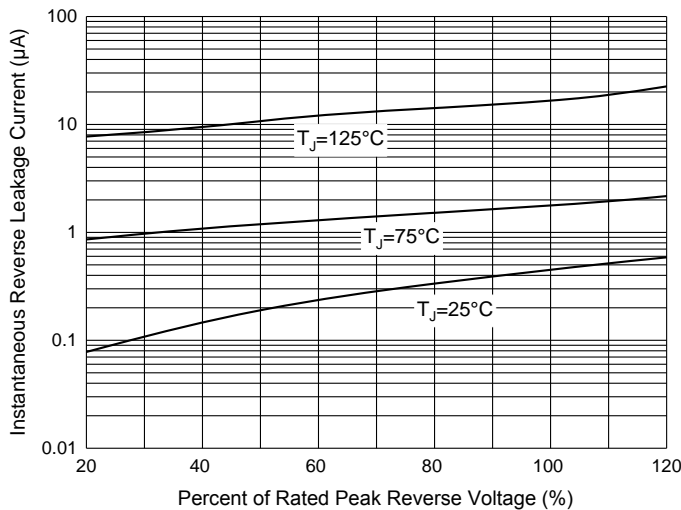


Fig. 4 - Typical Reverse Leakage Characteristics



## 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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