



Micro Commercial Components



Micro Commercial Components  
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## SDB151 THRU SDB157

### Features

- Halogen free available upon request by adding suffix "-HF"
- Surface Mount Package
- Low Profile Package
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

### Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- UL Recognized File # E165989

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

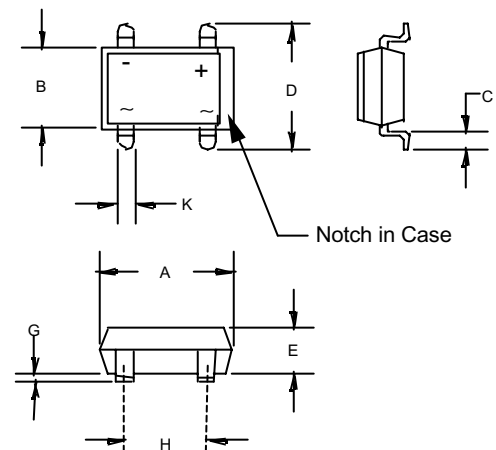
### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.5 A	$T_A = 40^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	50A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	$V_F$	1.1V	$I_{FM} = 1.5\text{A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$ 1.0mA	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$
Typical Junction Capacitance	$C_J$	25pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7

## 1.5 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

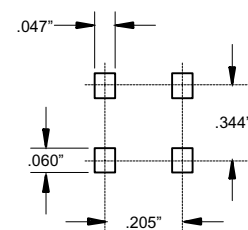
SDB-1



DIMENSIONS

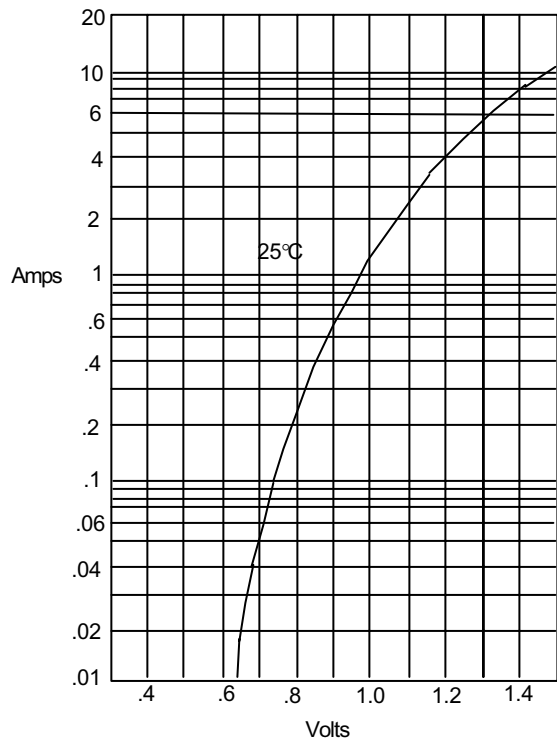
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.316	.335	8.05	8.51	
B	.245	.255	6.20	6.50	
C	.040	.060	1.02	1.50	
D	.360	.410	9.40	10.4	
E	.102	.130	2.60	3.30	
G	.003	.013	.076	.330	
H	.195	.205	5.00	5.20	
K	.038	.047	1.00	1.20	

Suggested Solder Pad Layout



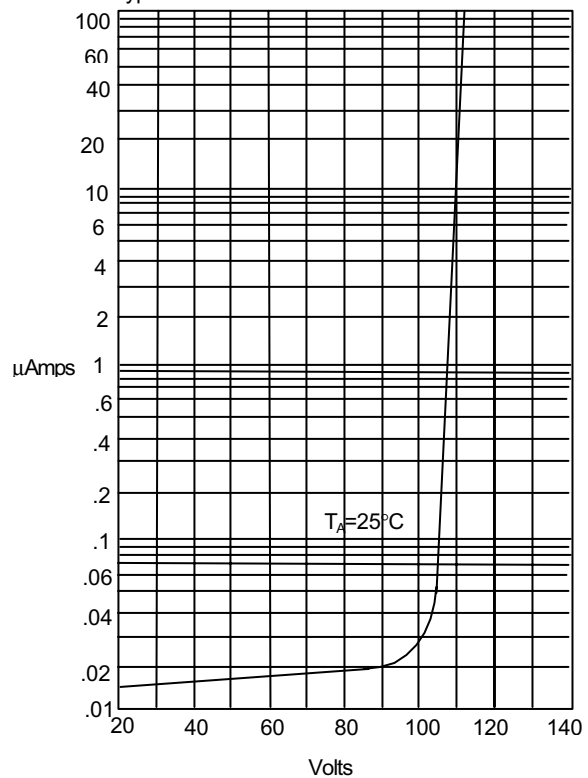
# SDB151 thru SDB157

Figure 1  
Typical Forward Characteristics



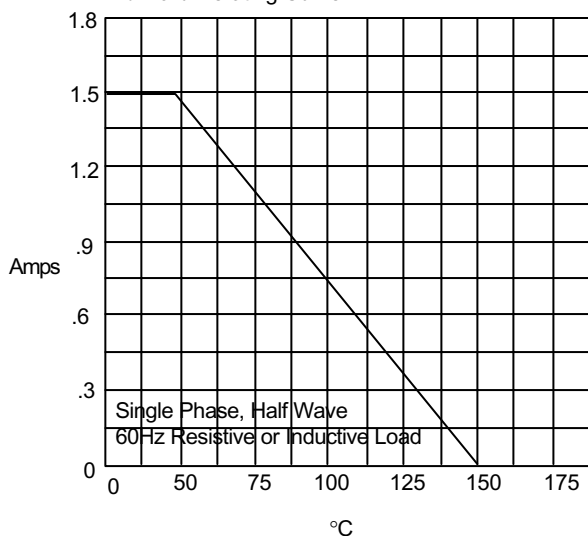
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Typical Reverse Characteristics



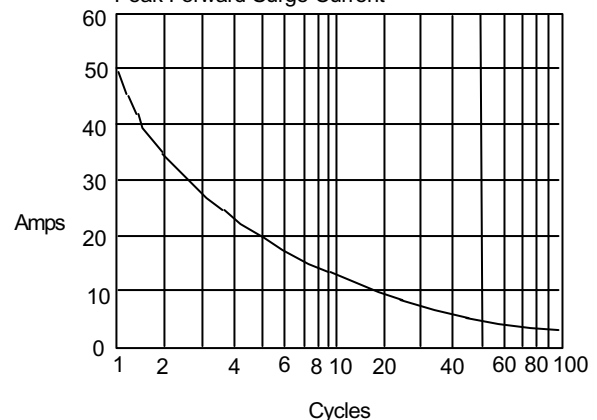
Instantaneous Reverse Leakage Current - MicroAmperes versus  
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 4  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes versus  
Number Of Cycles At 60Hz - Cycles

## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;1.5Kpcs/Reel
(Part Number)-BP	Bulk; 5K/Box

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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