Features

- Lead Free Finish/RoHS Compliant (Note1) ("P"Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Surface Mount And Low Profile Package
- Halogen Free. “Green” Device (Note 2)

1.0 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

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 Lead
- Typical Thermal Resistance(Note 3): 40°C/W Junction to Ambient

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SDB101L	SDB101	50V	35V	50V
SDB102L	SDB102	100V	70V	100V
SDB103L	SDB103	200V	140V	200V
SDB104L	SDB104	400V	280V	400V
SDB105L	SDB105	600V	420V	600V
SDB106L	SDB106	800V	560V	800V
SDB107L	SDB107	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

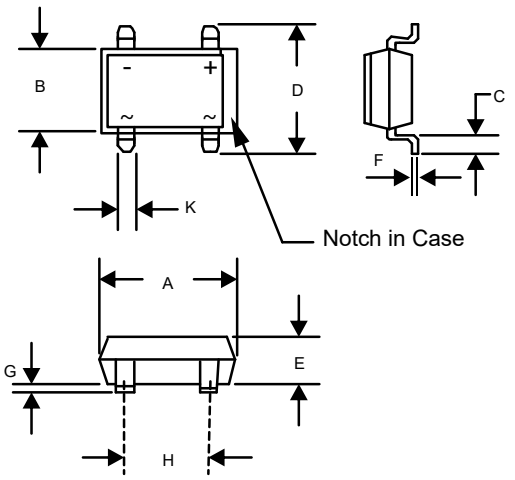
Average Forward Current	$I_{F(AV)}$	1.0A	T_A= 40°C
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	V_F	1.1V	I_{FM} = 1.0A T_J = 25°C
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	10μA 0.5mA	T_J = 25°C T_J= 125°C
Typical Junction Capacitance	C_J	25pF	Measured at 1.0MHz, V_R=4.0V

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

2. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

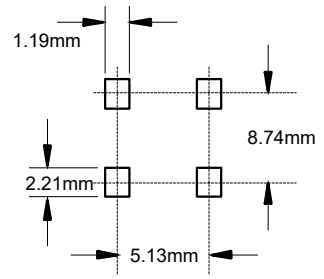
3. Units Mounted on P.C.B with 0.51x0.51"(13x13mm) Copper Pads

SDBL-1



DIMENSIONS					
DIM	INCHES		MM		NOTE
	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

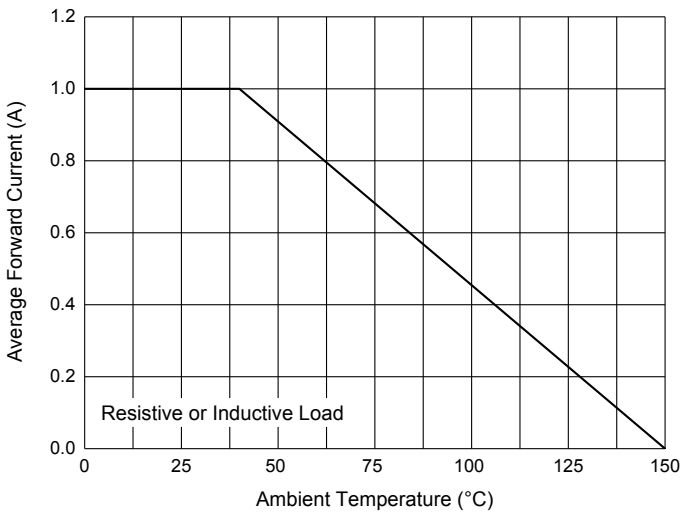


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

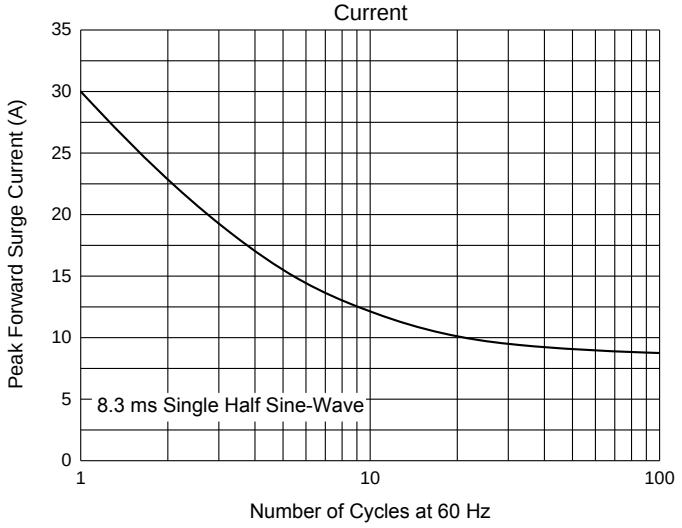


Fig. 3 - Typical Instantaneous Forward Characteristics

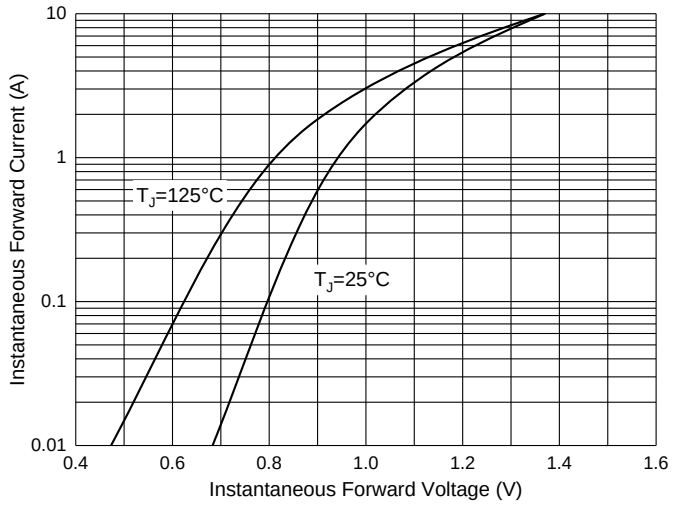


Fig. 4 - Typical Reverse Leakage Characteristics