

	E502650
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Features

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

Maximum Ratings @ 25°C (Unless Otherwise Specified)


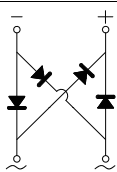
Parameter	Symbol	Value							Unit
		SDB 151	SDB 152	SDB 153	SDB 154	SDB 155	SDB 156	SDB 157	
Peak Repetitive Reverse Voltage	V_{RRM}								V
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	
DC Blocking Voltage	V_R								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Forward Current @ $T_A=40^\circ\text{C}$	$I_{F(AV)}$	1.5							A
Non-Repetitive Peak Surge Current @ 8.3ms Half Sine Wave	I_{FSM}	50							A
Non-Repetitive Peak Surge Current @ 1ms Square Wave		100							
Current Squared Time @ $1\text{ms} \leq t \leq 8.3\text{ms}$	I^2t	10.3							A^2s

1.5 Amp Single Phase Bridge Rectifier 50 to 1000 Volts

Marking Code

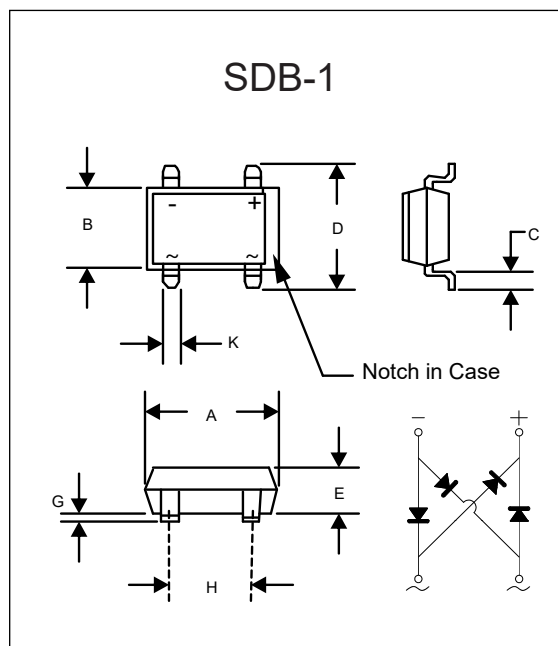
Part Number	Marking Code
SDB151	SDB151
SDB152	SDB152
SDB153	SDB153
SDB154	SDB154
SDB155	SDB155
SDB156	SDB156
SDB157	SDB157

Internal Structure

Simplified Outline	Graphic Symbol
 <p>XXXX = Marking Code</p>	

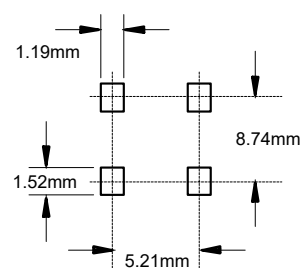
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2. High temperature solder exemption applied, see EU directive annex 7a.



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



Thermal characteristics

Symbol	Parameter	Conditions	Min	Typ	Max	Unit
T_J	Operating Junction Temperature Range		-55		150	°C
T_{stg}	Storage Temperature Range		-55		150	°C
$R_{th(J-L)}$	Thermal Resistance from Junction to Lead	Note 1		15		°C/W
$R_{th(J-A)}$	Thermal Resistance from Junction to Ambient	Note 1		40		°C/W

Note:

1. Device mounted on P.C.B with 35mm*25mm*1.7mm.

Electrical Characteristics @ 25°C Unless Otherwise Specified(Per Diode)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Forward Voltage	V_F	$I_F=0.7A; T_J=25^\circ C$			1.1	V
Reverse Current	I_R	at Rated $V_R; T_J=25^\circ C$ at Rated $V_R; T_J=125^\circ C$			5 100	μA
Junction Capacitance	C_J	$V_R=4V; f=1MHz; T_J=25^\circ C$		18		pF

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

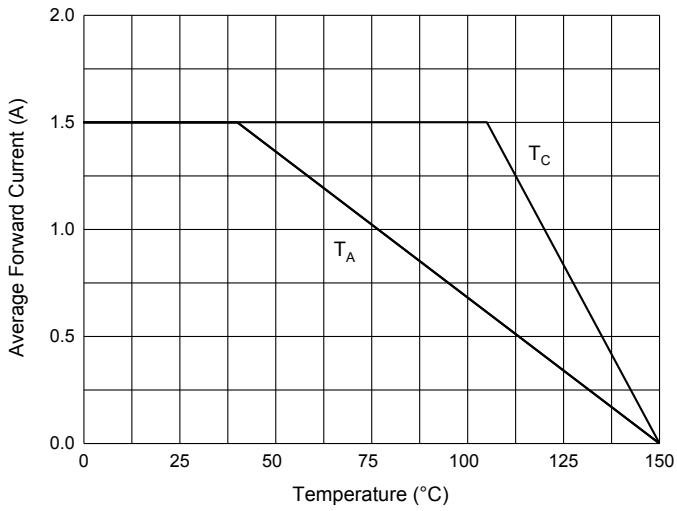


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

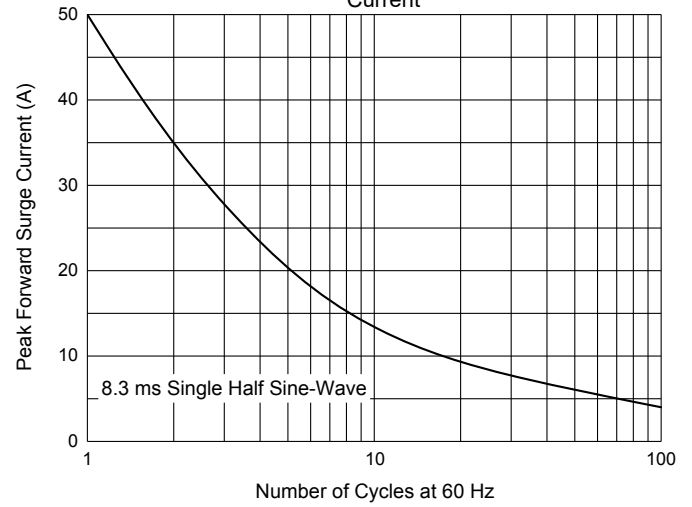


Fig. 3 - Typical Forward Characteristics

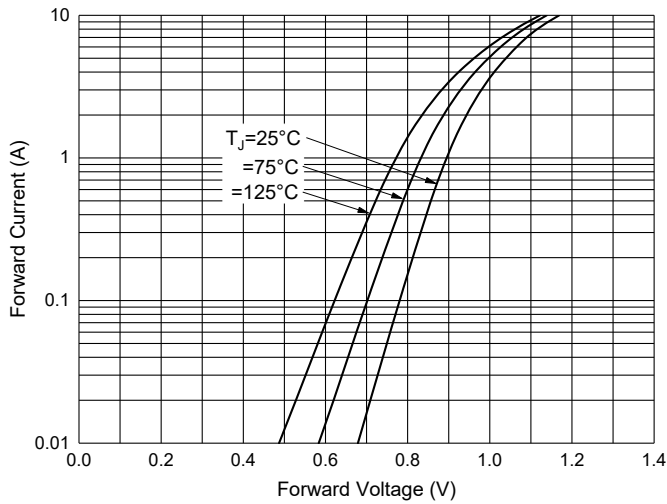


Fig. 4 - Typical Reverse Leakage Characteristics

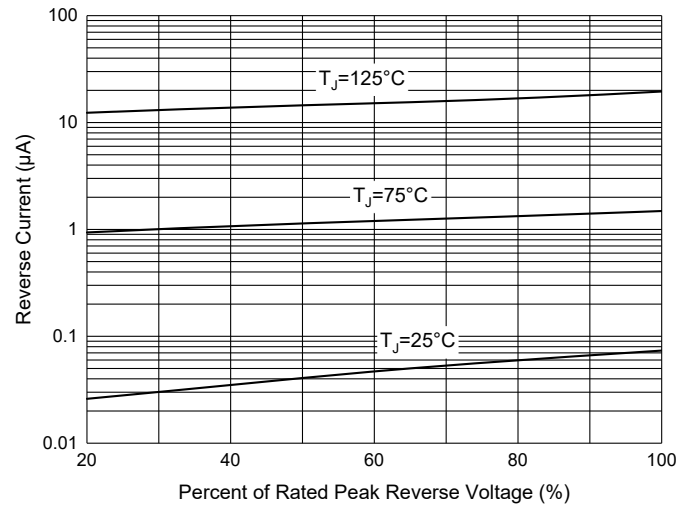
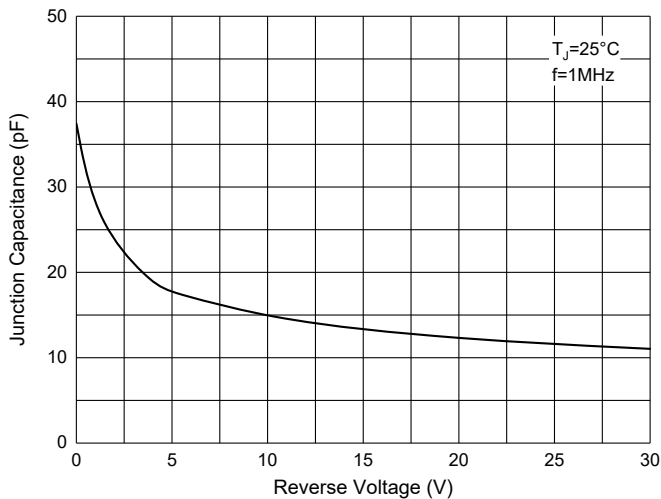


Fig. 5 - Typical Capacitance Characteristics



Ordering Information

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

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