



Micro Commercial Components
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ESDB101 THRU ESDB103

Features

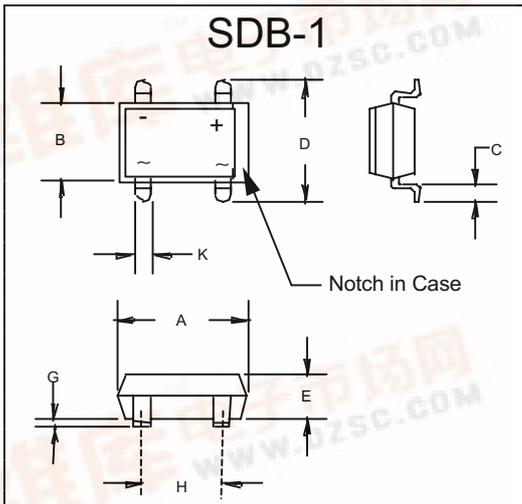
- Surface Mount Package
- Glass Passivated Diode Construction
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- UL Recognized File # E165989

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
ESDB101	ESDB101	50V	35V	50V
ESDB102	ESDB102	100V	70V	100V
ESDB103	ESDB103	200V	140V	200V

1 Amp Single Phase Fast Recovery Bridge Rectifier 50 to 200 Volts

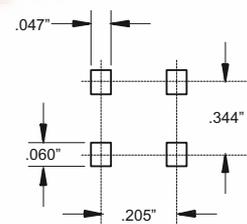


Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1A	$T_A = 40^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	50A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.05V	$I_{FM} = 1.0\text{A}; T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10 μA	$T_A = 25^\circ\text{C}$
		1mA	$T_A = 125^\circ\text{C}$
Typical Junction Capacitance	C_J	25pF	Measured at 1.0MHz, $V_R = 4.0\text{V}$
Rating For Fusing	I^2t	10A ² s	$t < 8.3\text{ms}$
Max. Reverse Recovery Time Per Diode	T_{rr}	50 ns	$I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$

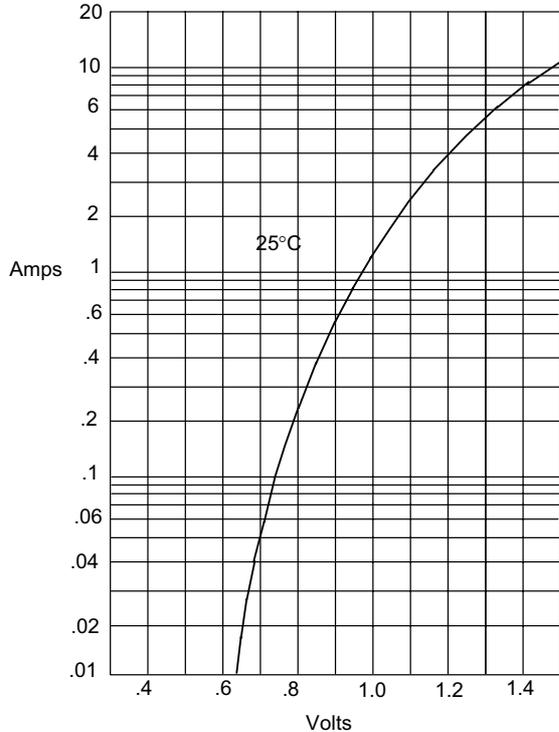
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.316	.335	8.05	8.51	
B	.245	.255	6.20	6.50	
C	.040	.060	1.02	1.52	
D	.360	.410	9.40	10.4	
E	.102	.125	2.60	3.2	
G	.003	.013	.076	.330	
H	.195	.205	5.00	5.20	
K	.038	.042	1.00	1.10	

Suggested Solder Pad Layout



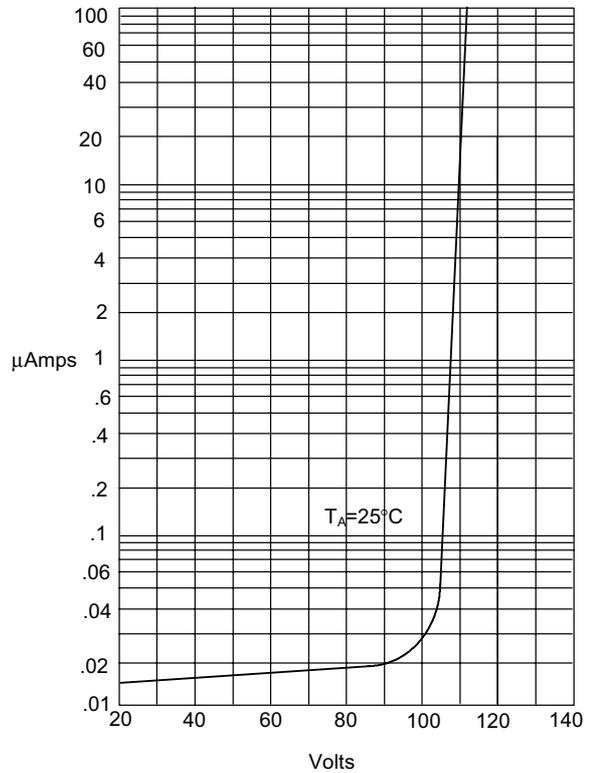
ESDB101 thru ESDB103

Figure 1
Typical Forward Characteristics



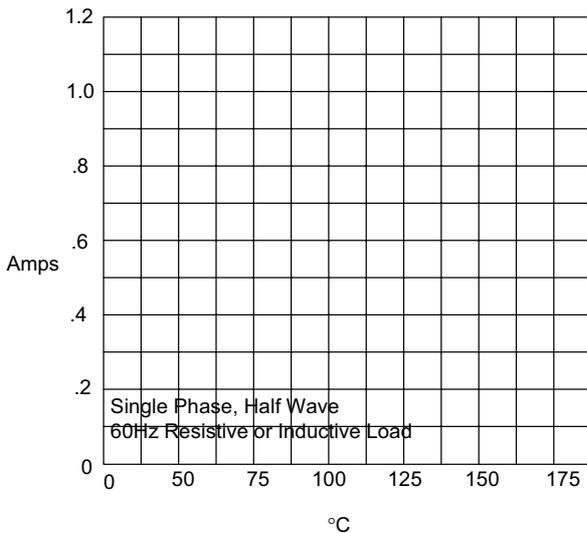
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



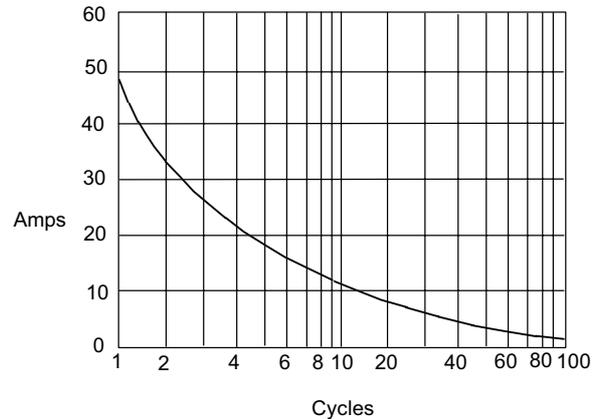
Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

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



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