

**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

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

### **Maximum Ratings**

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

MCC Catalog	Device Marking	Maximum Recurrent	Maximum RMS	Maximum DC
Number		Peak Reverse Voltage	Voltage	Blocking Voltage
		•	0=1/	
ESDB101	ESDB101	50V	35V	50V
ESDB102	ESDB102	100V	70V	100V
ESDB103	ESDB103	200V	140V	200V

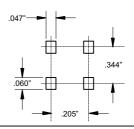
# SDB-1 B Notch in Case

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Average Forward Current	I <sub>F(AV)</sub>	1A	TA = 40°C	
Peak Forward Surge Current	I <sub>FSM</sub>	50A	8.3ms, half sine	
Maximum Instantaneous Forward Voltage	V <sub>F</sub>	1.05V	IFM= 1.0A; T <sub>A</sub> = 25°C	
Maximum DC Reverse Current	I <sub>R</sub>	10µA	Ta= 25°C	
At Rated DC Blocking Voltage		1mA	Ta= 125°C	
Typical Junction Capacitance	CJ	25pF	Measured at 1.0MHz, VR=4.0V	
Rating For Fusing	l <sup>2</sup> t	10A <sup>2</sup> s	t<8.3ms	
Max. Reverse Recovery Time Per Diode	Trr	50 ns	$I_F = 0.5 \text{ A}, I_R = 1.0 \text{ A},$ $Irr = 0.25 \text{ A}$	

DIMENSIONS									
	INCHES		MM						
DIM	MIN	MAX	MIN	MAX	NOTE				
Α	.316	.335	8.05	8.51					
В	.245	.255	6.20	6.50					
С	.040	.060	1.02	1.52					
D	.360	.410	9.40	10.4					
Е	.102	.125	2.60	3.2					
G	.003	.013	.076	.330					
Н	.195	.205	5.00	5.20					
K	.038	.042	1.00	1.10					

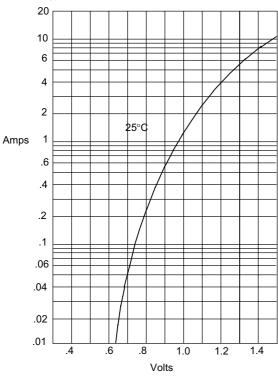
Suggested Solder Pad Layout





# ESDB101 thru ESDB103

Typical Forward Characteristics



Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

Forward Derating Curve 1.2 1.0 .8 .6 Amps .2 Single Phase, Half Wave 60Hz Resistive or Inductive 125

Figure 3

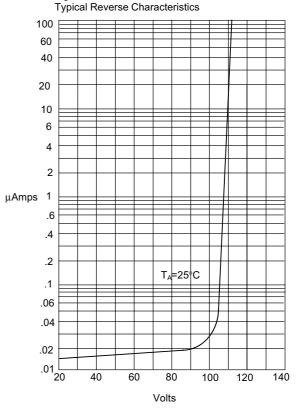
°C Average Forward Rectified Current - Amperes/ersus Ambient Temperature -°C

100

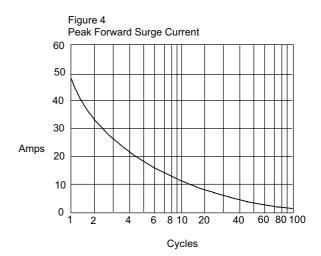
150

175

**Micro Commercial Components** Figure 2



Instantaneous Reverse Leakage Current - MicroAmperesersus Percent Of Rated Peak Reverse Voltage - Volts



Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles



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