Micro Commercial Components
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HDBS101G THRU HDBS107G

1.0 AMP. Glass Passivated Bridge High Efficient Rectifier 50 to 1000 Volts

Features

- High Forward Surge Capability
- Ideal for printed circuit boards
- High Temperature Soldering: 250°C for 10 seconds
- Reliable low cost construction utilizing molded plastic technique

Maximum Ratings

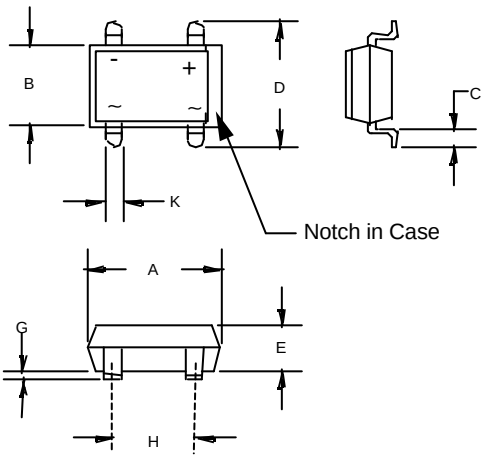
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- For Capacitive Load, Derate Current by 20%

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
HDBS101G	50V	35V	50V
HDBS102G	100V	70V	100V
HDBS103G	200V	140V	200V
HDBS104G	400V	280V	400V
HDBS105G	600V	420V	600V
HDBS106G	800V	560V	800V
HDBS107G	1000V	700V	1000V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0 A	T_C = 40°C
Peak Forward Surge Current	I_{FSM}	50A	8.3ms, half sine T_J=150°C
Maximum Instantaneous Forward Voltage HDBS101G-103G HDBS104G HDBS105G-107G	V_F	 1.0V 1.3V 1.7V	I_{FM} = 1.0A; T_C = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0μA 500uA	T_C = 25°C T_C = 125°C
Maximum Reverse Recovery Time HDBS101G-104G HDBS105G-107G	T_{rr}	 50ns 75ns	 I_F=0.5A, I_R=1.0A, I_{rr}=0.25A

SDB-1



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.320	.335	8.13	8.50	
B	.245	.255	6.20	6.50	
C	.040	.060	1.02	1.52	
D	.386	.404	9.80	10.3	
E	.120	.130	3.05	3.30	
G	.003	.013	0.076	0.33	
H	.195	.205	5.00	5.20	
K	.040	.047	1.02	1.20	TYP

Suggested Solder Pad Layout

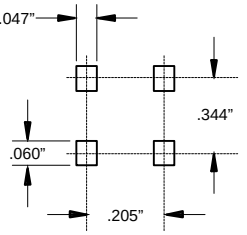


FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

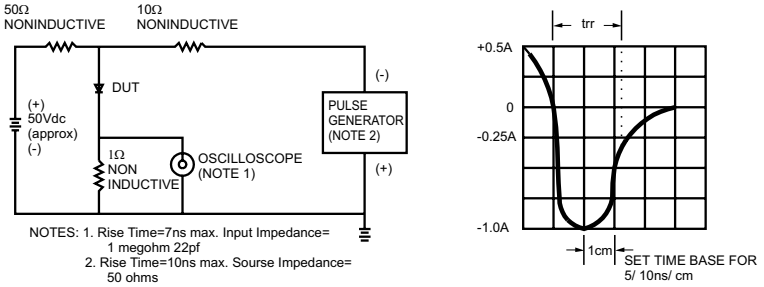


FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

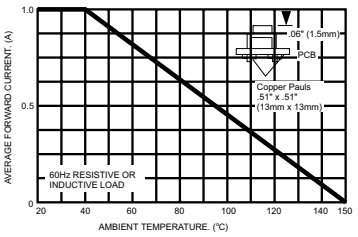


FIG.3- TYPICAL REVERSE CHARACTERISTICS

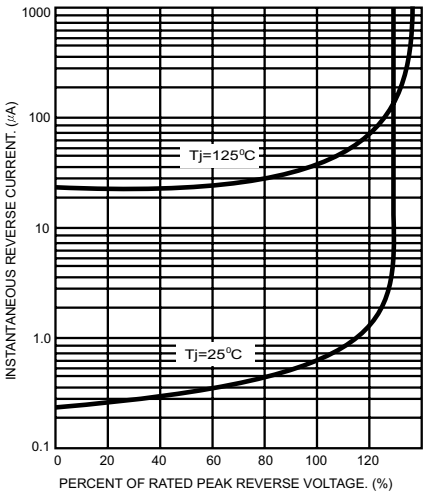


FIG.4- TYPICAL FORWARD CHARACTERISTICS

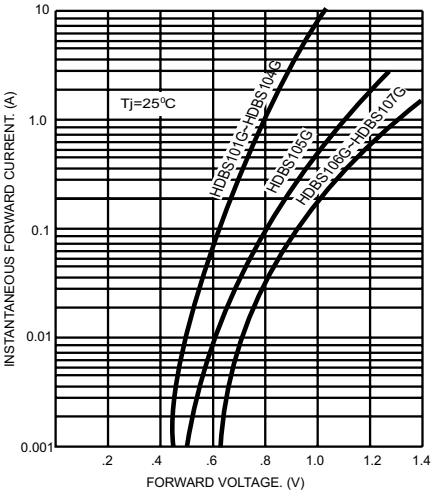


FIG.5- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

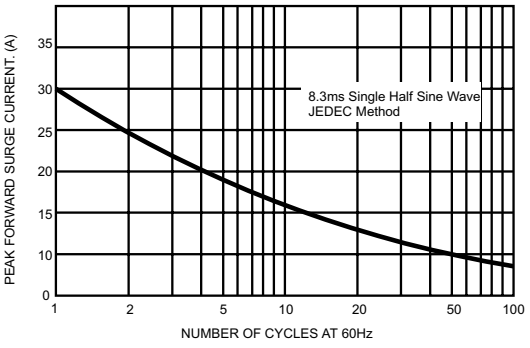


FIG.6- TYPICAL JUNCTION CAPACITANCE