



HDB(S)101G - HDB(S)107G

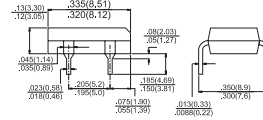
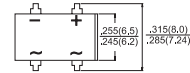
1.0 AMP. Glass Passivated Bridge High Efficient Rectifiers



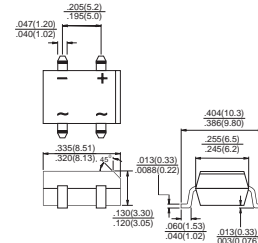
Features

- ✧ Glass passivated junction
- ✧ Ideal for printed circuit board
- ✧ Reliable low cost construction utilizing molded plastic technique
- ✧ High temperature soldering guaranteed:
260°C / 10 seconds / 0.375" (9.5mm)
lead length at 5 lbs., (2.3 kg) tension
- ✧ Small size, simple installation
- ✧ High surge current capability

DB



DBS



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	HDB	HDB	HDB	HDB	HDB	HDB	HDB	Units	
		101G	102G	103G	104G	105G	106G	107G		
		HDBS	HDBS	HDBS	HDBS	HDBS	HDBS	HDBS		
		101G	102G	103G	104G	105G	106G	107G		
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V	
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V	
Maximum Average Forward Rectified Current @ $T_A = 40^\circ C$	$I_{(AV)}$	1.0							A	
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	50							A	
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.0		1.3		1.7			V	
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=125^\circ C$	I_R	5.0			500				μA μA	
Maximum Reverse Recovery Time (Note 2)	T_{rr}	50				75			nS	
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$	40				15				$^\circ C/W$
Operating Temperature Range	T_J	-55 to +150							$^\circ C$	
Storage Temperature Range	T_{STG}	-55 to +150							$^\circ C$	

- Notes:
1. DBS for Surface Mount Package.
 2. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$.
 3. Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B. with 0.2" x 0.2" (5 x 5mm) Copper Pads



LGE

HDB(S)101G - HDB(S)107G

1.0 AMP. Glass Passivated Bridge High Efficient Rectifiers

RATINGS AND CHARACTERISTIC CURVES (HDB(S)101G THRU HDB(S)107G)

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

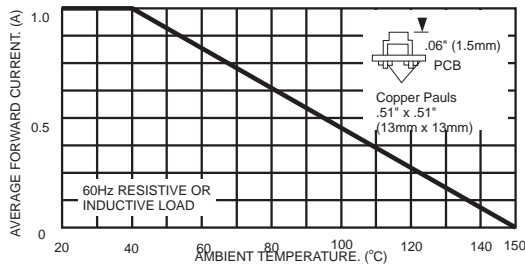


FIG.2- TYPICAL FORWARD CHARACTERISTICS

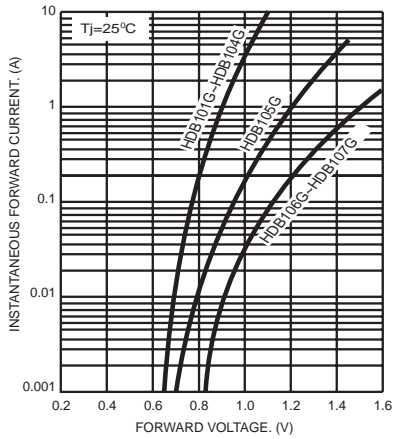


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

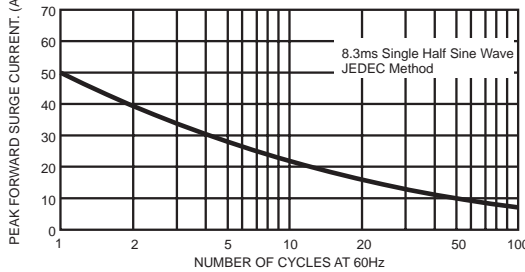


FIG.5- TYPICAL REVERSE CHARACTERISTICS

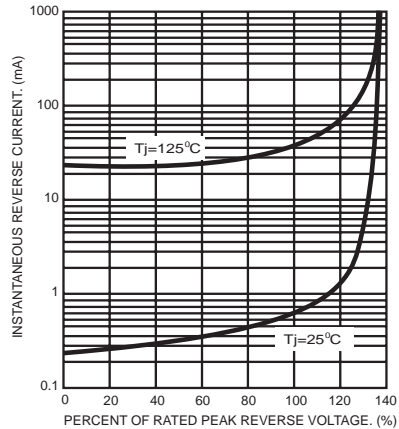


FIG.4- TYPICAL JUNCTION CAPACITANCE

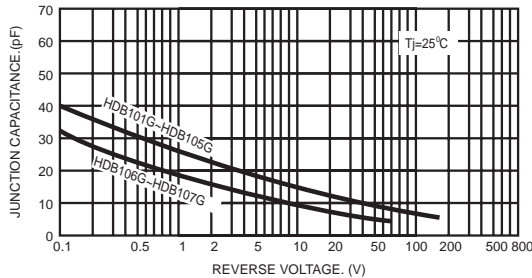
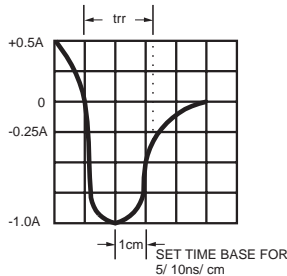
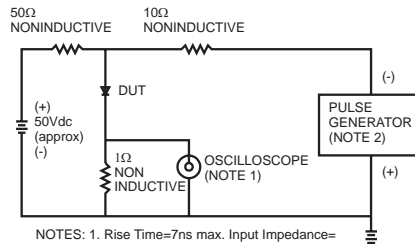


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm Z2pf
 2. Rise Time=10ns max. Source Impedance= 50 ohms