



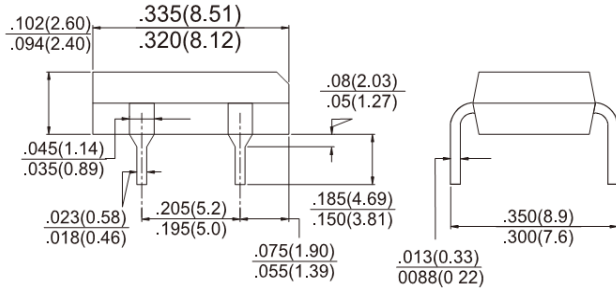
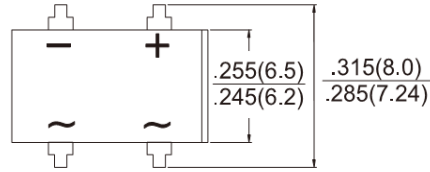
HDBL101G - HDBL107G

1.0AMP. Glass Passivated High Efficient Bridge Rectifiers

DBL

Features

- ✦ UL Recognized File # E-326854
- ✦ 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 5lbs., (2.3kg) tension
- ✦ High surge current capability
- ✦ Green compound with suffix "G" on packing code & prefix "G" on datecode



Mechanical Data

- ✦ Case: Molded plastic
- ✦ Terminals: Pure tin plated, lead free, solderable per MIL-STD-202, Method 208
- ✦ Weight: 0.368 grams

Dimensions in inches and (millimeters)

Marking Diagram



- P/N = Specific Device Code
- G = Green Compound
- Y = Year
- WW = Work Week

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	HDBL 101G	HDBL 102G	HDBL 103G	HDBL 104G	HDBL 105G	HDBL 106G	HDBL 107G	Unit	
Maximum Repetitive 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	$I_{F(AV)}$	1							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 (Note 1) @1 A	V_F	1.0		1.3		1.7		V		
Maximum DC Reverse Current at Rated DC Block Voltage @ $T_A=25^\circ C$ @ $T_A=125^\circ C$	I_R	5			500			μA		
Maximum Reverse Recovery Time (Note 2)	T_{rr}	50				75			nS	
Typical Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	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: Pulse Test with PW=300 usec, 1% Duty Cycle

Notes 2: Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$

RATINGS AND CHARACTERISTIC CURVES (HDBL101G THRU HDBL107G)

FIG.1 FORWARD CURRENT DERATING CURVE

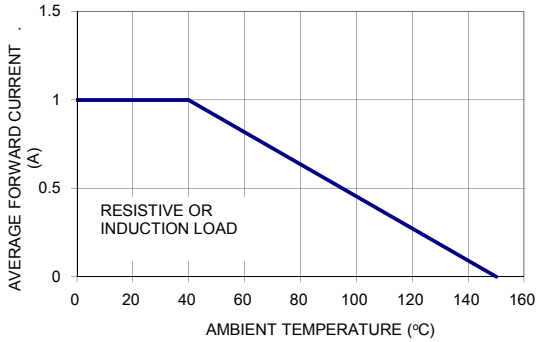


FIG. 2 TYPICAL FORWARD CHARACTERISTICS

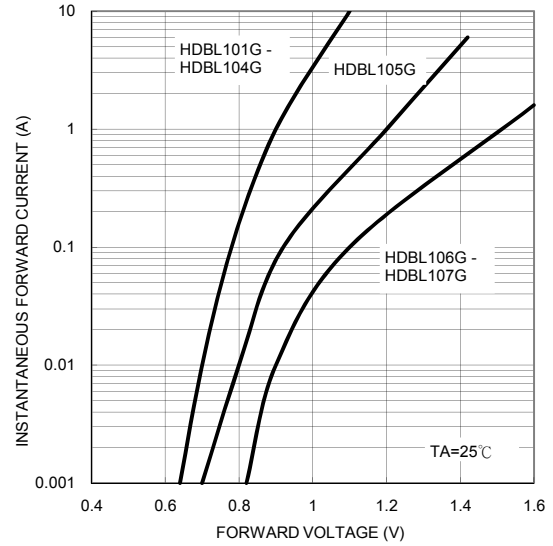


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

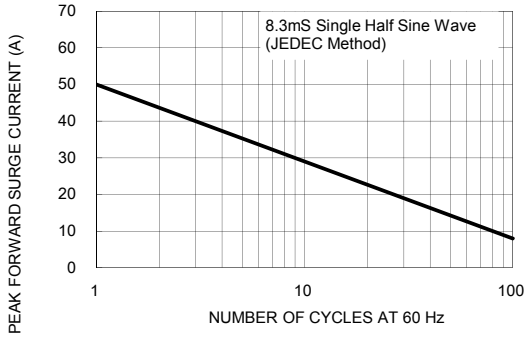


FIG. 4 TYPICAL JUNCTION CAPACITANCE

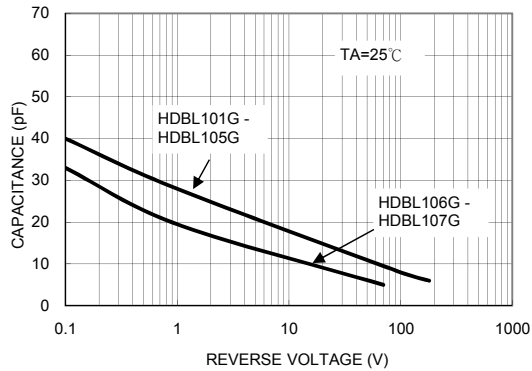


FIG. 5 TYPICAL REVERSE CHARACTERISTICS

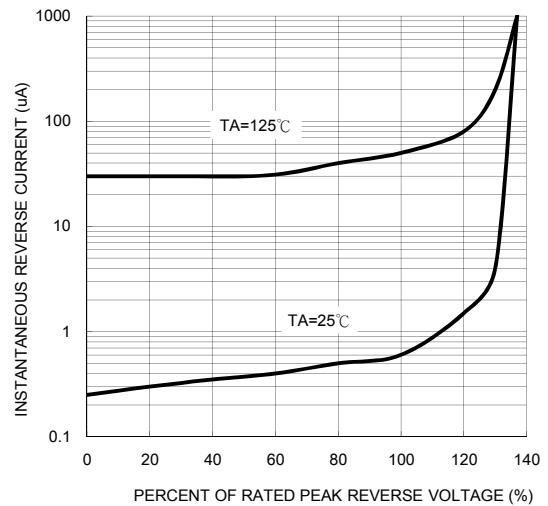


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

