1A, 50V - 1000V Glass Passivated Bridge Rectifiers

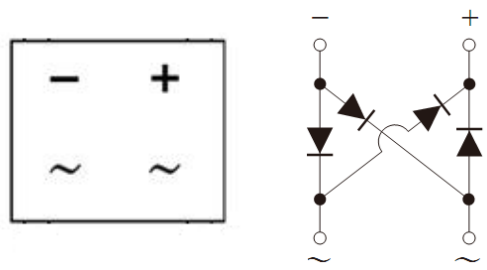
FEATURES

- Ideal for printed circuit board
- Reliable low cost construction utilizing molded plastic technique
- High surge current capability
- UL Recognized File # E-326854
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21

Pb-Free

RoHS COMPLIANT

DBL



MECHANICAL DATA

Case: Molded plastic body
Molding compound, UL flammability classification rating 94V-0
Part no. with suffix "H" means AEC-Q101 qualified
Packing code with suffix "G" means green compound (halogen-free)
Terminal: Matte tin plated leads, solderable per JESD22-B102
Meet JESD 201 class 2 whisker test
Polarity: Polarity as marked on the body
Weight: 0.36 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)									
PARAMETER	SYMBOL	DBL 101G	DBL 102G	DBL 103G	DBL 104G	DBL 105G	DBL 106G	DBL 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	I_{FSM}	40					30		A
Rating for fusing (t<8.3ms)	I^2t	6.64					3.73		A^2s
Maximum instantaneous forward voltage (Note 1) I_F= 1 A	V_F	1.1							V
Maximum reverse current @ rated V_R T_J=25°C T_J=125°C	I_R	2 500							μA
Typical junction capacitance Per Leg (Note 2)	C_J	25							pF
Typical thermal resistance	$R_{\theta JL}$ $R_{\theta JA}$	15 40							°C/W
Operating junction temperature range	T_J	- 55 to +150							°C
Storage temperature range	T_{STG}	- 55 to +150							°C

Note 1: Pulse Test with PW=300μs,1% Duty Cycle
Note 2: Measure at 1.0MHz and Applied Reverse Voltage of 4.0 Volts D.C.

ORDERING INFORMATION					
PART NO.	PACKING CODE	PACKING CODE	PACKING CODE SUFFIX (*)	PACKAGE	PACKING
DBL10xG (Note 1)	H	C1	G	DBL	50 / TUBE

Note 1: "x" defines voltage from 50V (DBL101G) to 1000V (DBL107G)

*: Optional available

EXAMPLE					
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
DBL107GHC1G	DBL107G	H	C1	G	AEC-Q101 qualified Green compound

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

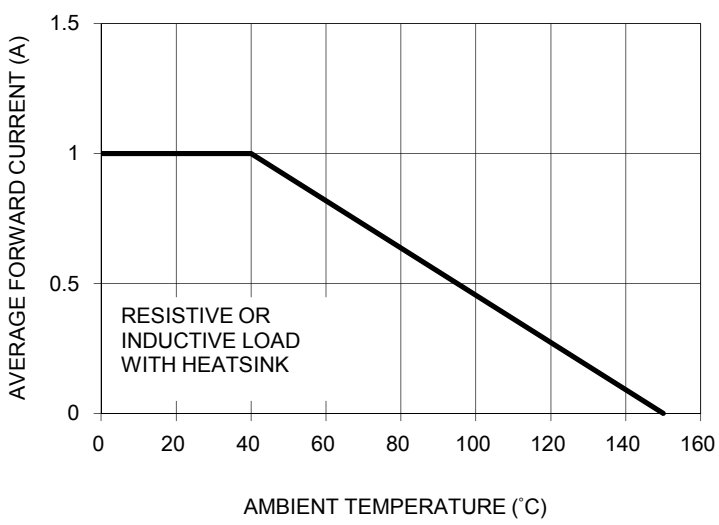


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

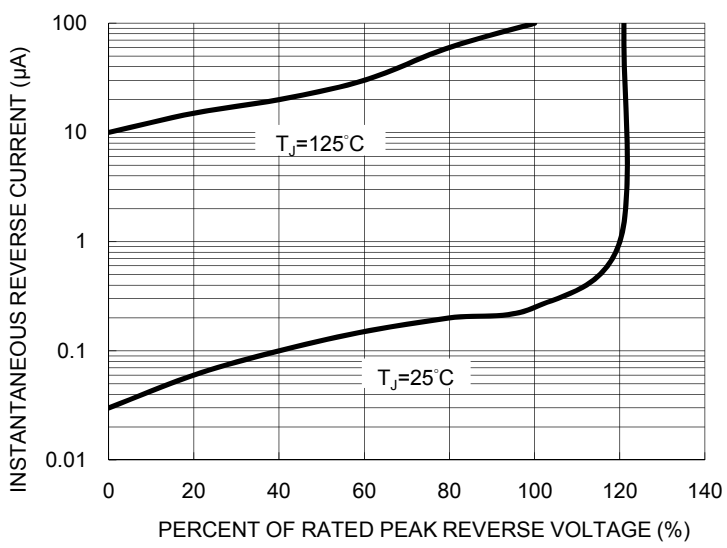


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

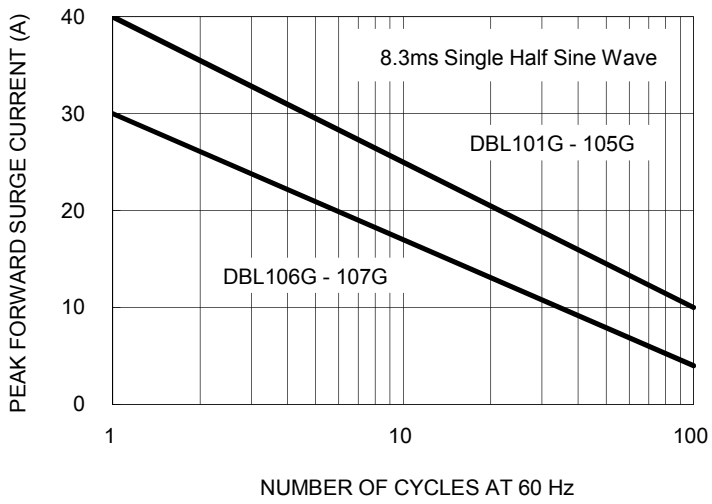


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

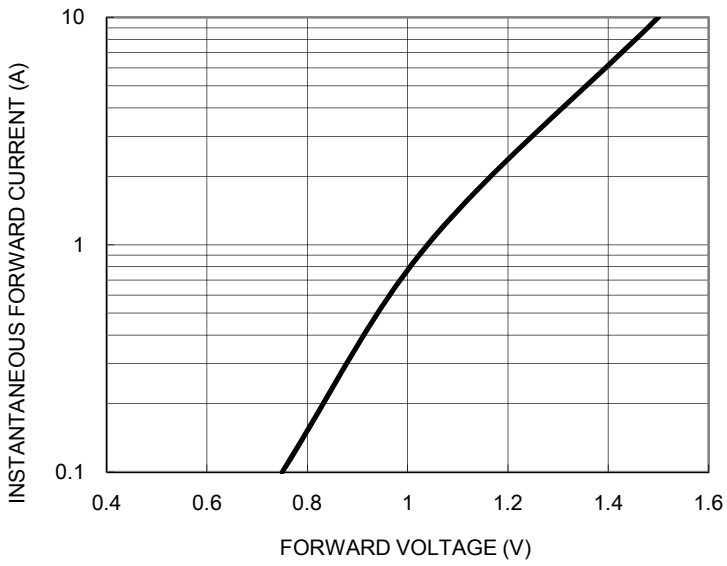
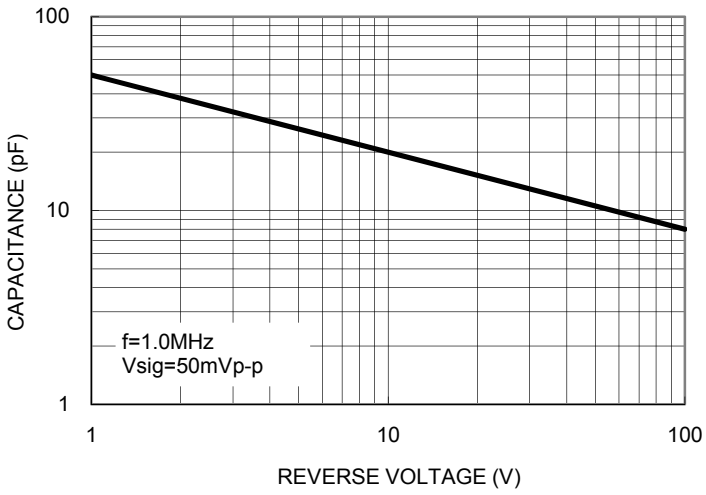
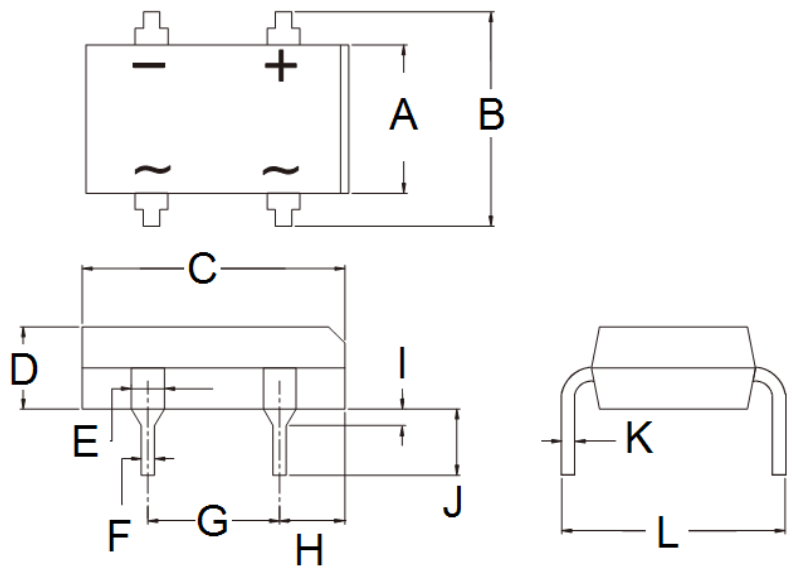


FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS

DBL



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	6.20	6.50	0.244	0.256
B	7.24	8.00	0.285	0.315
C	8.12	8.51	0.320	0.335
D	2.40	2.60	0.094	0.102
E	0.89	1.14	0.035	0.045
F	0.46	0.58	0.018	0.023
G	5.00	5.20	0.197	0.205
H	1.39	1.90	0.055	0.075
I	1.27	2.03	0.050	0.080
J	3.81	4.69	0.150	0.185
K	0.22	0.33	0.009	0.013
L	7.60	8.90	0.299	0.350

MARKING DIAGRAM

P/N = Specific Device Code
G = Green Compound
YW = Date Code
F = Factory Code

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