

Glass Passivated Bridge Rectifiers

FEATURES

- Ideal for automated placement
- 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 definition
- AEC-Q101 qualified



MECHANICAL DATA

Case: Molded plastic body

Molding compound, UL flammability classification rating 94V-0

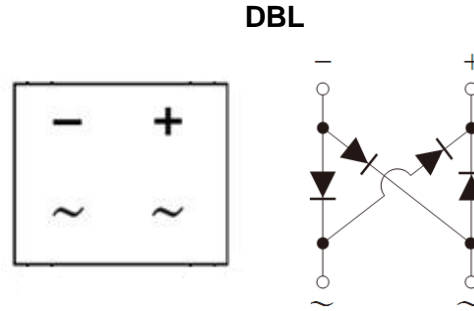
Packing code with suffix "G" means green compound (halogen-free)

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 151G	DBL 152G	DBL 153G	DBL 154G	DBL 155G	DBL 156G	DBL 157G	DBL 158G	DBL 159G	UNIT	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800	1000	1200	1400	V	
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560	700	840	980	V	
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	1200	1400	V	
Maximum average forward rectified current	I _{F(AV)}	1.5									A	
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	50									A	
Rating for fusing (t<8.3ms)	I ² t	10.3									A ² s	
Maximum instantaneous forward voltage (Note 1) I _F = 1.5 A	V _F	1.1						1.25			V	
Maximum DC reverse current at rated DC blocking voltage	I _R						2 500					μA
Typical junction capacitance per leg (Note 2)	C _J						25					pF
Typical thermal resistance	R _{θJL} R _{θJA}						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 SUFFIX	PACKAGE	PACKING
DBL15xG (Note 1)	C1	G	DBL	50 / TUBE

Note 1: "x" defines voltage from 50V (DBL151G) to 1400V (DBL159G)

EXAMPLE

PREFERRED PART NO.	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
DBL157G C1	DBL157G	C1		AEC-Q101 qualified
DBL157G C1G	DBL157G	C1	G	AEC-Q101 qualified Green compound

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

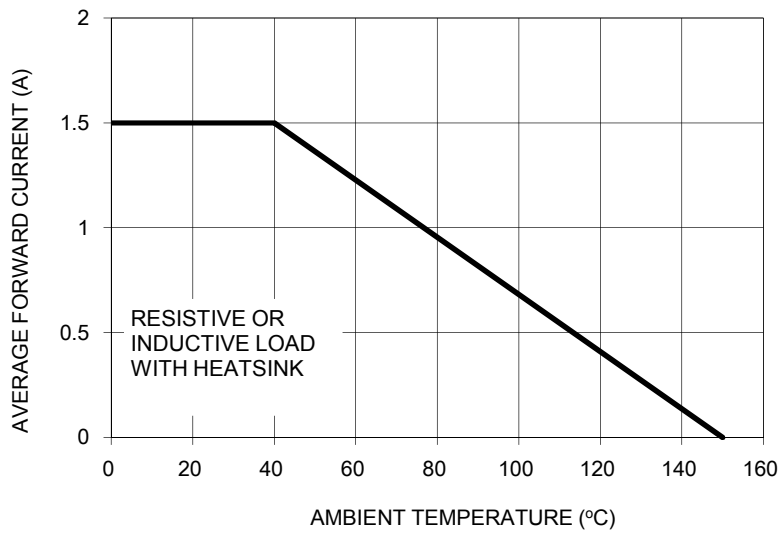


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

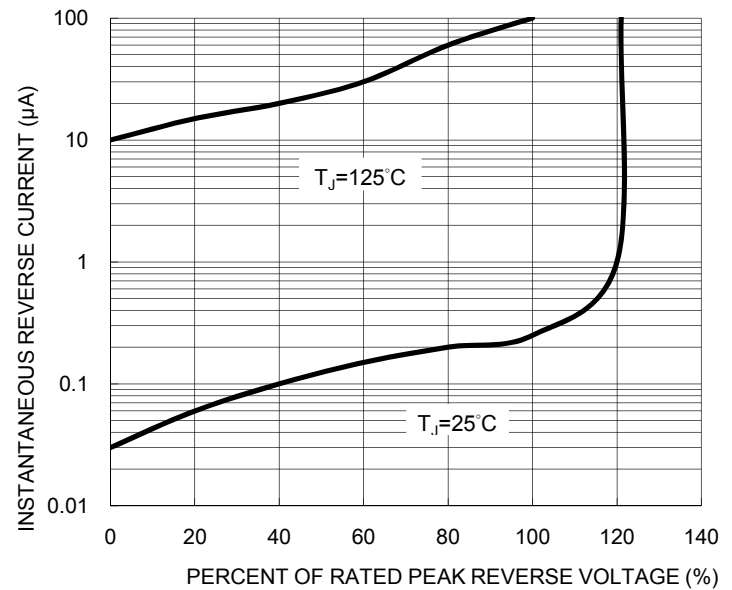


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

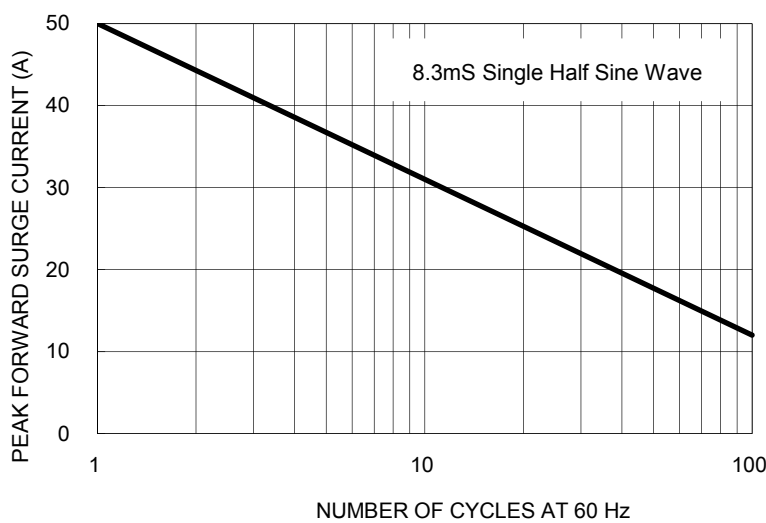


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

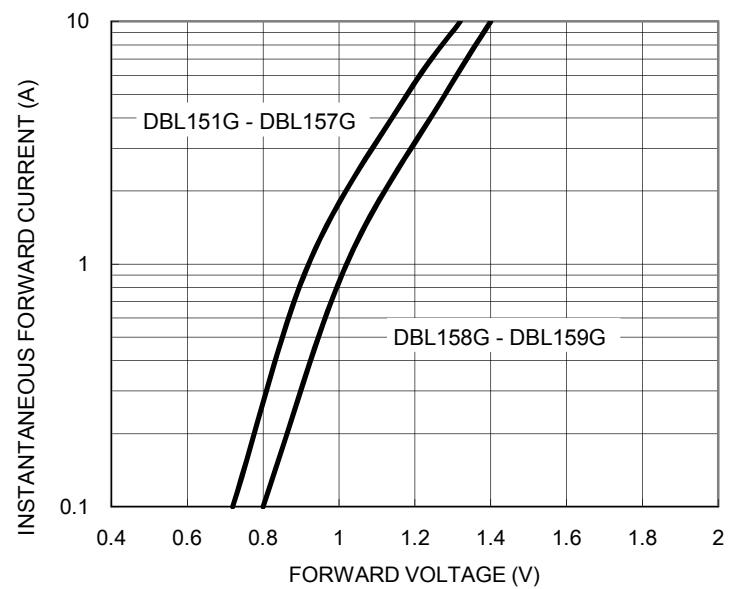
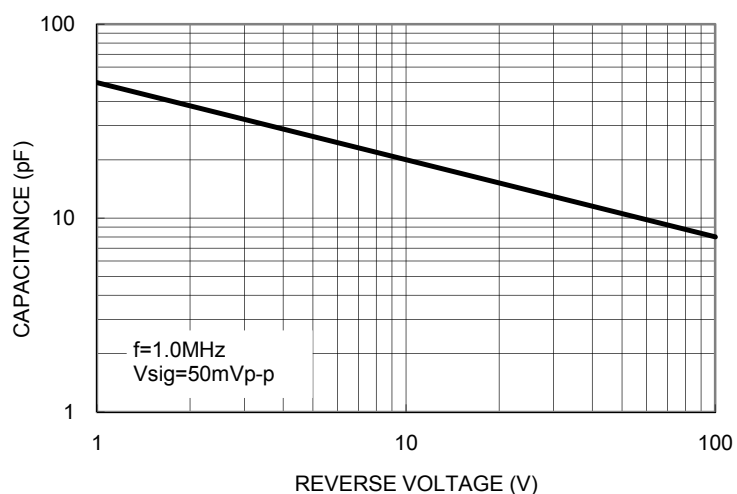
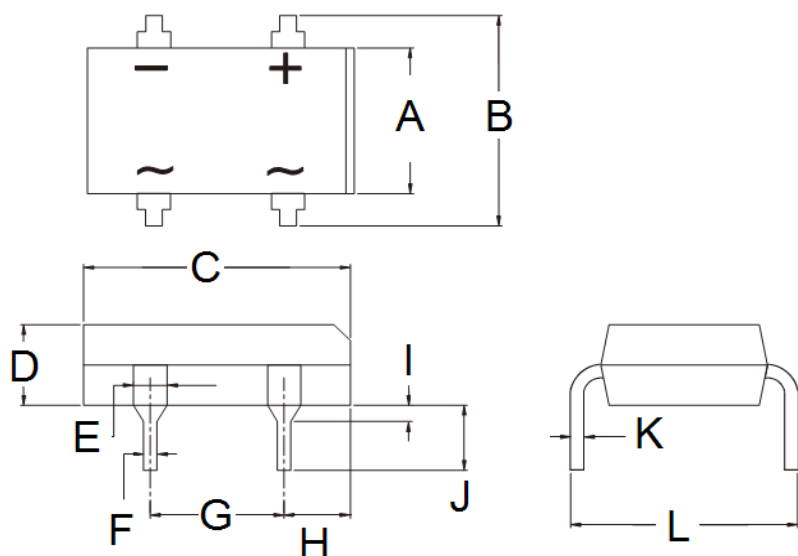


FIG. 5 TYPICAL JUNCTION CAPACITANCE



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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