

1A, 400V - 1000V Glass Passivated Bridge Rectifiers

FEATURES

- Ideal for automated placement
- Reliable low cost construction utilizing molded plastic technique
- High surge current capability
- Halogen-free according to IEC 61249-2-21
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC


DBLS


MECHANICAL DATA

Case: Molded plastic body

Molding compound, UL flammability classification rating 94V-0

Moisture sensitivity level: level 1, per J-STD-020

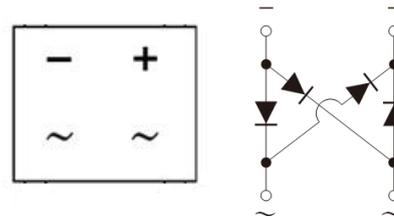
Packing code with suffix "G" means green compound (halogen-free)

Terminal: Matte tin plated leads, solderable per J-STD-002

Meet JESD 201 class 1A whisker test

Polarity: Polarity as marked on the body

Weight: 0.36 g (approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ unless otherwise noted)						
PARAMETER	SYMBOL	DBLS 104G-T	DBLS 105G-T	DBLS 106G-T	DBLS 107G-T	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	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 ($t < 8.3\text{ms}$)	I^2t	6.6		3.7		A^2s
Maximum instantaneous forward voltage (Note 1) $I_F = 1\text{ A}$	V_F	1.1				V
Maximum reverse current @ rated V_R $T_J = 25^{\circ}\text{C}$ $T_J = 125^{\circ}\text{C}$	I_R	2 100				μA
Typical junction capacitance per leg (Note 2)	C_J	25				pF
Typical thermal resistance	$R_{\theta JL}$ $R_{\theta JA}$	15 40				$^{\circ}\text{C/W}$
Operating junction temperature range	T_J	- 55 to +150				$^{\circ}\text{C}$
Storage temperature range	T_{STG}	- 55 to +150				$^{\circ}\text{C}$

Note 1: Pulse Test with $PW=300\mu\text{s}$, 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
DBLS10XG-T (Note 1)	C1	G	DBLS	50 / TUBE
	RD			1,500 / 13" Paper reel

Note 1: "x" defines voltage from 400V (DBLS104G-T) to 1000V (DBLS107G-T)

Note 2: All series with green compound

EXAMPLE				
EXAMPLE P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
DBLS107G-T RDG	DBLS107G-T	RD	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

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

FIG.1 FORWARD CURRENT DERATING CURVE

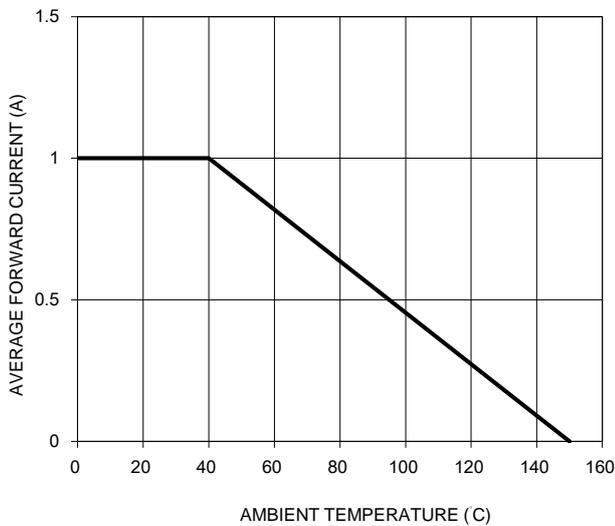


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

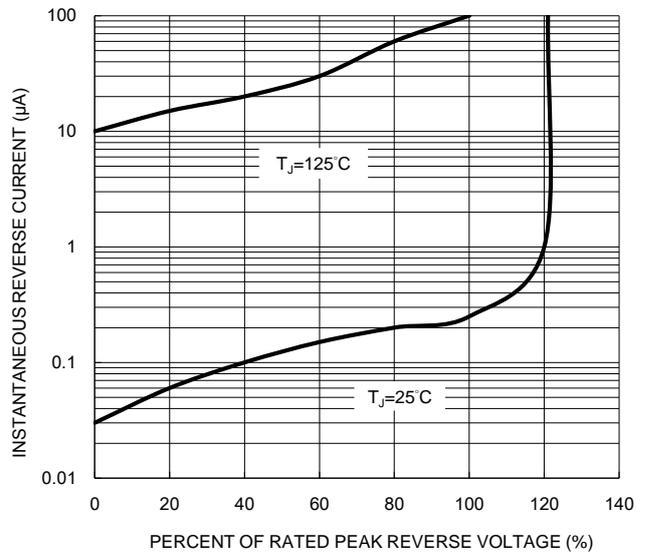


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

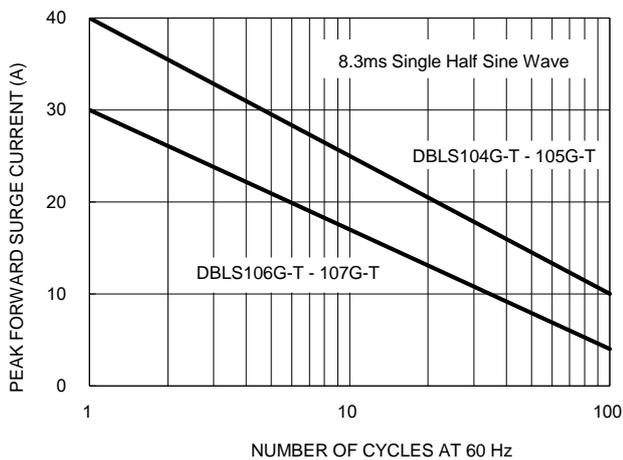


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

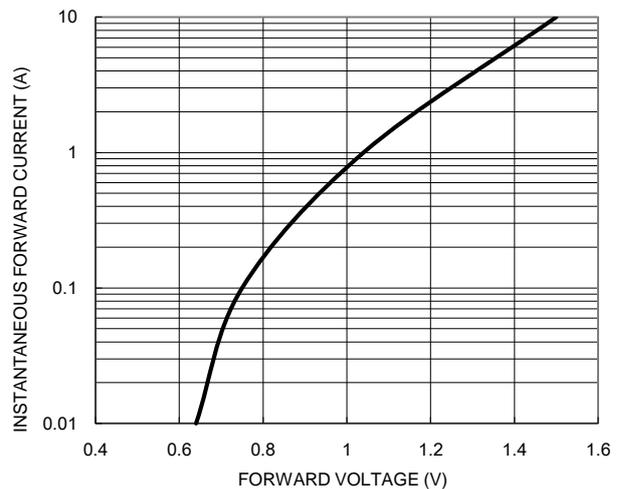
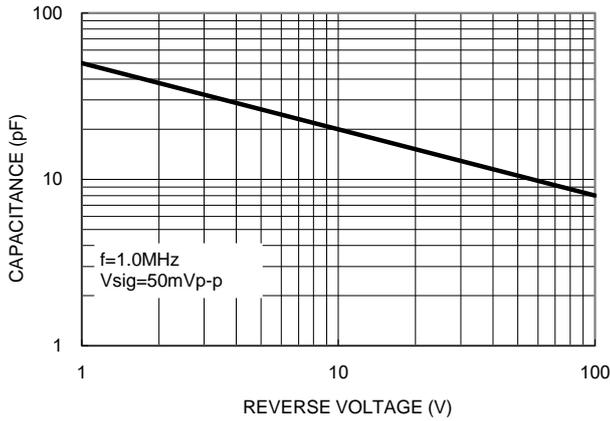
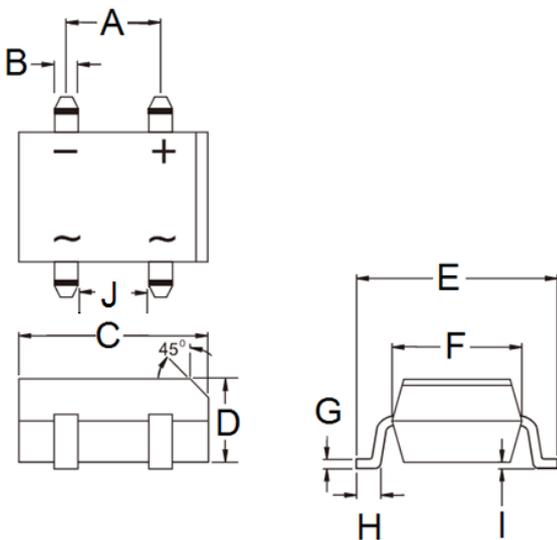


FIG. 5 TYPICAL JUNCTION CAPACITANCE



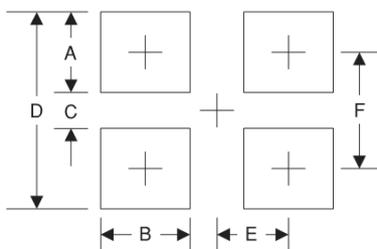
PACKAGE OUTLINE DIMENSIONS

DBLS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	5.00	5.20	0.197	0.205
B	1.02	1.20	0.040	0.047
C	8.13	8.51	0.320	0.335
D	2.35	2.60	0.093	0.102
E	9.80	10.30	0.386	0.406
F	6.20	6.50	0.244	0.256
G	0.22	0.33	0.009	0.013
H	1.02	1.53	0.040	0.060
I	0.076	0.33	0.003	0.013
J	3.90	4.10	0.154	0.161

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	2.3	0.091
B	1.3	0.051
C	6.9	0.272
D	11.5	0.453
E	2.6	0.102
F	9.2	0.362

MARKING DIAGRAM



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

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