1.5A, 400V - 1000V Glass Passivated Bridge Rectifier

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

APPLICATIONS

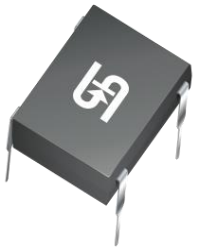
- Switching mode power supply (SMPS)
- Adapters
- Lighting application

MECHANICAL DATA

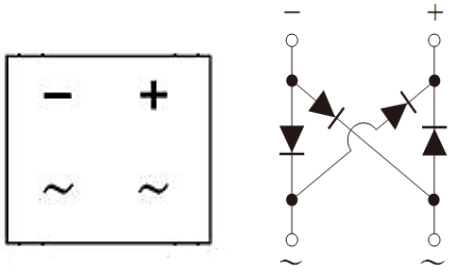
- Case: DBL
- Molding compound :meets UL 94V-0 flammability rating
- Packing code with suffix "G" means green compound (halogen-free)
- Terminal: Matte tin plated leads, solderable per J-STD-002
- Meet JESD 201 class 1A whisker test
- Polarity: As marked
- Weight: 0.36 g (approximately)

KEY PARAMETERS		
PARAMETER	**VALUE**	**UNIT**
$I_{F(AV)}$	1.5	A
V_{RRM}	400 - 1000	V
I_{FSM}	50	A
$T_{J\ MAX}$	150	°C
Package	DBL	
Configuration	Quad	

Pb-Free RoHS COMPLIANT HALOGEN FREE



DBL



ABSOLUTE MAXIMUM RATINGS (T_A = 25°C unless otherwise noted)						
PARAMETER	**SYMBOL**	**DBL154 G-T**	**DBL155 G-T**	**DBL156 G-T**	**DBL157 G-T**	**UNIT**
Marking code on the device		DBL154G	DBL155G	DBL156G	DBL157G	
Repetitive peak reverse voltage	V_{RRM}	400	600	800	1000	V
Reverse voltage, total rms value	$V_{R(RMS)}$	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	400	600	800	1000	V
Forward current	$I_{F(AV)}$	1.5				A
Surge peak forward current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	50				A
I^2t value (of a surge on-state current)	I^2t	10.3				A^2s
Junction temperature	T_J	-55 to +150				°C
Storage temperature	T_{STG}	-55 to +150				°C

THERMAL PERFORMANCE

PARAMETER	SYMBOL	LIMIT	UNIT
Junction-to-lead thermal resistance	$R_{\Theta JL}$	15	°C/W
Junction-to-ambient thermal resistance	$R_{\Theta JA}$	40	°C/W

ELECTRICAL SPECIFICATIONS (T_A = 25°C unless otherwise noted)

PARAMETER	CONDITIONS	SYMBOL	TYP.	MAX.	UNIT
Forward voltage (1)	I_F = 1.5A, T_J = 25°C	V_F	-	1.1	V
Reverse current @ rated V_R (2)	T_J = 25°C	I_R	-	2	μA
	T_J = 125°C		-	500	μA
Junction capacitance	1 MHz, V_R=4.0V	C_J	25	-	pF

Notes:
1. Pulse test with PW=0.3 ms
2. Pulse test with PW=30 ms.

ORDERING INFORMATION

PART NO.	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
DBL15xG-T (Note 1, 2)	CB	G	DBL	50 / TUBE

Notes:
1. "x" defines voltage from 400V (DBL154G-T) to 1000V (DBL157G-T)
2. Whole series with green compound (halogen-free)

EXAMPLE P/N

EXAMPLE P/N	PART NO.	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
DBL154G-T CBG	DBL154G-T	CB	G	Green compound

CHARACTERISTICS CURVES

(T_A = 25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

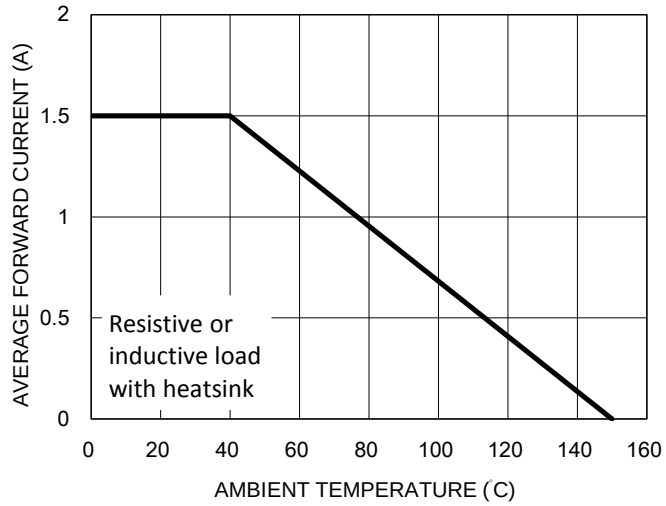


Fig.2 Typical Junction Capacitance

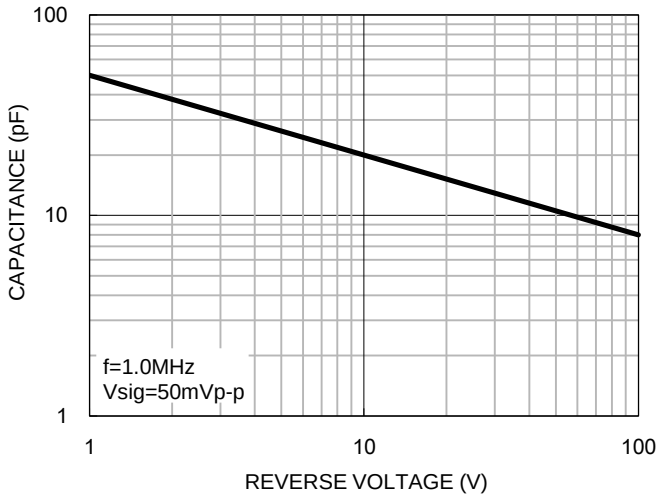


Fig.3 Typical Reverse Characteristics

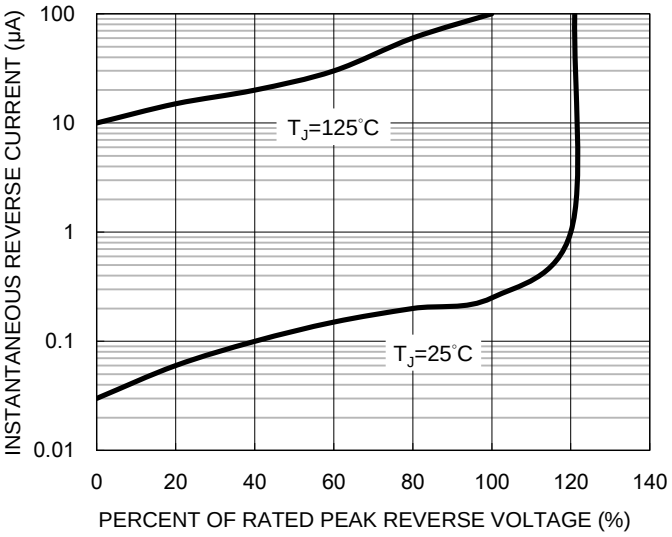
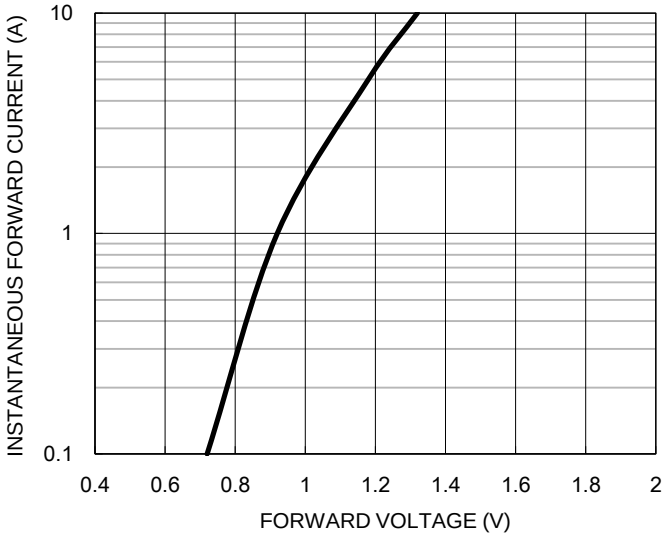


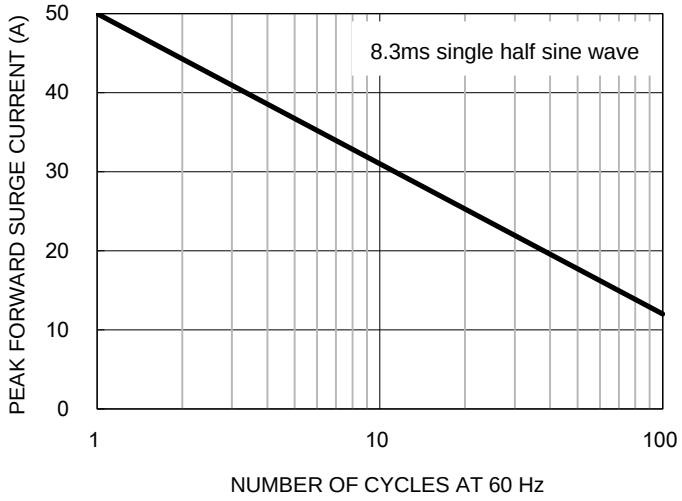
Fig.4 Typical Forward Characteristics



CHARACTERISTICS CURVES

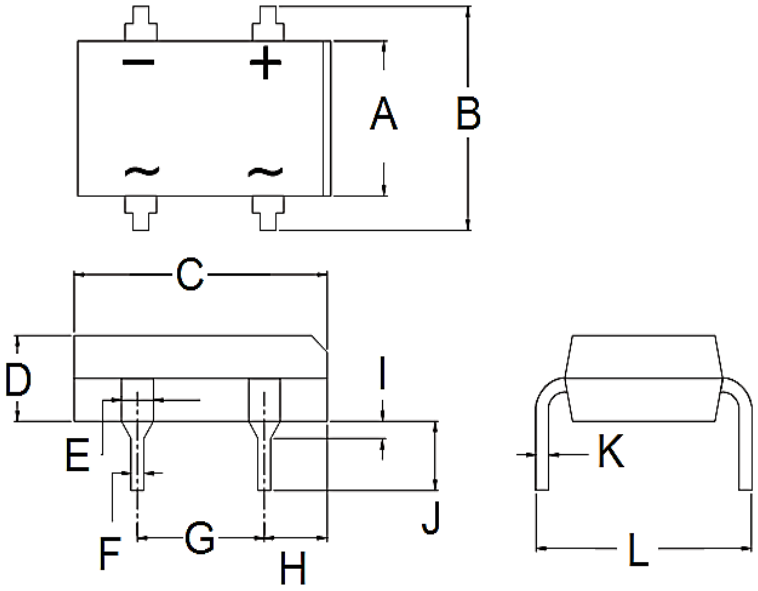
(T_A = 25°C unless otherwise noted)

Fig.5 Maximum Non-repetitive Forward Surge Current



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	2.35	2.60	0.093	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 = Marking Code
G = Green Compound
YW = Date Code
F = Factory Code

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