# imall

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We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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### 2A, 50V - 1400V 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

#### **MECHANICAL DATA**

Case: Molded plastic body

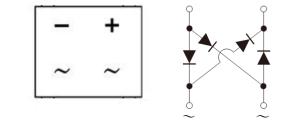
Molding compound, UL flammability classification rating 94V-0 Part no. with suffix "H" means AEC-Q101 qualified Packing code with suffix "G" means green compound (halogen-free) **Terminal:** Matte tin plated leads, solderable per JESD22-B102 Meet JESD 201 class 2 whisker test **Polarity:** Polarity as marked on the body **Weight:** 0.38 g (approximately)



DBL







MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)											
PARAMETER	SYMBOL	DBL 201G		DBL 203G	DBL 204G	DBL 205G	DBL 206G	DBL 207G	DBL 208G	DBL 209G	UNIT
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	50	100	200	400	600	800	1000	1200	1400	V
Maximum RMS voltage	V <sub>RMS</sub>	35	70	140	280	420	560	700	840	980	V
Maximum DC blocking voltage		50	100	200	400	600	800	1000	1200	1400	V
Maximum average forward rectified current	I <sub>F(AV)</sub>					2.0					А
k forward surge current, 8.3 ms single half sine-wave erimposed on rated load 50				А							
Rating for fusing (t<8.3ms)	l <sup>2</sup> t					10.3					A <sup>2</sup> s
Maximum instantaneous forward voltage (Note 1) I <sub>F</sub> = 2 A	V <sub>F</sub>	1.15 1.30		30	V						
Maximum reverse current @ rated $V_R$ T <sub>J</sub> =25°C T <sub>J</sub> =125°C	I <sub>R</sub>	2 500				μA					
Typical thermal resistance	R <sub>θJL</sub> R <sub>θJA</sub>	15 40			°C/W						
Operating junction temperature range		- 55 to +150							°C		
Storage temperature range	T <sub>STG</sub>	- 55 to +150							°C		

Note 1: Pulse Test with PW=300µs,1% Duty Cycle



**Taiwan Semiconductor** 

ORDERING INFORMATION						
PART NO.	PACKING CODE	PACKING CODE	PACKING CODE SUFFIX <sup>(*)</sup>	PACKAGE	PACKING	
DBL20xG (Note 1)	Н	C1	G	DBL	50 / TUBE	

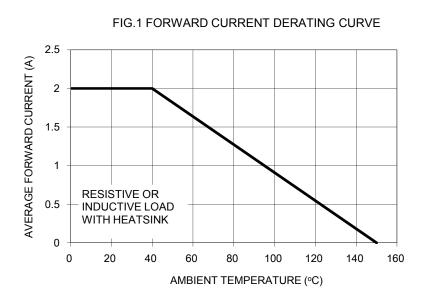
Note 1: "x" defines voltage from 50V (DBL201G) to 1400V (DBL209G)

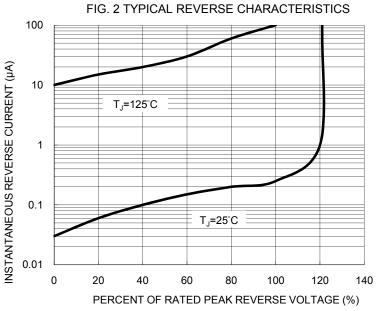
\*: Optional available

EXAMPLE							
PREFERRED P/N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION		
DBL207GHC1G	DBL207G	Н	C1	G	AEC-Q101 qualified Green compound		

#### **RATINGS AND CHARACTERISTICS CURVES**

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





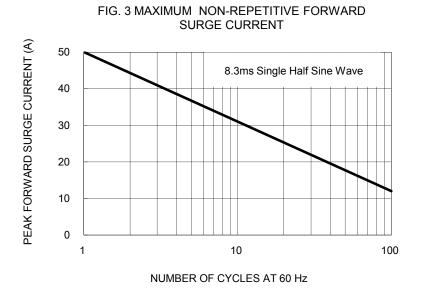


FIG. 4 TYPICAL FORWARD CHARACTERISTICS

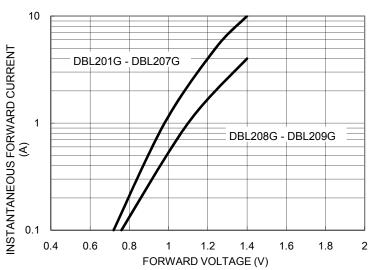
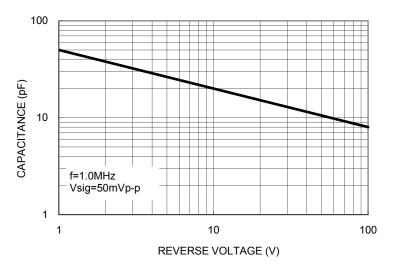
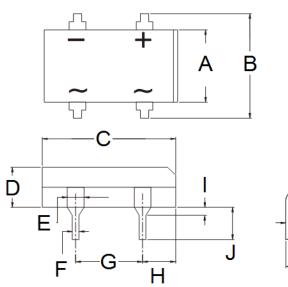




FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS DBL

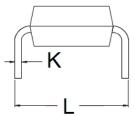


P/N

G

F

YW



DIM.	Unit	(mm)	Unit (inch)			
DIW.	Min	Max	Min	Max		
А	6.20	6.50	0.244	0.256		
В	7.24	8.00	0.285	0.315		
С	8.12	8.51	0.320	0.335		
D	2.40	2.60	0.094	0.102		
Е	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		
Н	1.39	1.90	0.055	0.075		
Ι	1.27	2.03	0.050	0.080		
J	3.81	4.69	0.150	0.185		
К	0.22	0.33	0.009	0.013		
L	7.60	8.90	0.299	0.350		

#### MARKING DIAGRAM



- = Specific Device Code
- = Green Compound
- = Date Code
- = Factory Code



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