



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

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!



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Features

- Glass Passivated Die Construction
- Rating to 1,000V PRV
- Low Reverse Leakage Current
- Surge Overload Rating to 150A Peak
- Ideal for Printed Circuit Board Applications
- **Lead-Free Finish; RoHS Compliant (Notes 1 & 2)**

Mechanical Data

- Case: GBL
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020
- Terminals: Matte Tin Finish. Solderable per MIL-STD 202, Method 208
- Polarity: Marked on Body See "Marking Information" Below
- Marking: Date Code and Type Number
- Weight: 2.52 grams (Approximate)

Ordering Information (Note 3)

Part Number	Qualification	Case	Packaging
GBL410	Commercial	GBL	20/Tube

- Notes:
1. EU Directive 2002/95/EC (RoHS) & 2011/65/EU (RoHS 2) compliant. All applicable RoHS exemptions applied.
 2. See <http://www.diodes.com> for more information about Diodes Incorporated's definitions of Halogen- and Antimony-free, "Green" and Lead-free.
 3. For packaging details, go to our website at <http://www.diodes.com>.

Marking Information

GBL



GBL410 = Product Type Marking Code
 = Manufacturers' Code Marking
 YWW = Date Code Marking
 Y = Last Digit of Year (ex: 7 = 2017)
 WW = Week Code (01 – 53)

Maximum Ratings and Electrical Characteristics (@T_A = +25°C, unless otherwise specified.)

Single phase, half wave, 60Hz, resistive or inductive load.
 For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V _{RRM}	1,000	V
Working Peak Reverse Voltage	V _{RWM}		
DC Blocking Voltage	V _R		
RMS Reverse Voltage	V _{R(RMS)}	700	V
Average Forward Rectified Current (Note 4)	With Heatsink	4.0	A
	Without Heatsink	2.4	
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Rated Load	I _{FSM}	150	A
Forward Voltage (Per Element)	@ I _F = 2.0A V _{FM}	1.0	V
Peak Reverse Current at Rated DC Blocking Voltage	@T _J = +25°C	5	μA
	@T _J = +125°C	500	
I ² t Rating for Fusing (Note 5)	I ² _t	93	A ² s
Typical Total Capacitance per Element (Note 6)	C _T	35	pF
Typical Thermal Resistance Junction to Case (Note 4)	R _{θJC}	4.2	°C/W
Typical Thermal Resistance Junction to Lead	R _{θJL}	4.0	°C/W
Typical Thermal Resistance Junction to Ambient (Note 4)	R _{θJA}	10	°C/W
Operating and Storage Temperature Range	T _J , T _{STG}	-55 to +150	°C

- Notes:
4. Unit mounted on 50x50x1.6mm Cu plate heatsink.
 5. Non-repetitive, for t > 3.0ms and < 8.3ms.
 6. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

NEW PRODUCT

FIG.1 - FORWARD CURRENT DERATING CURVE

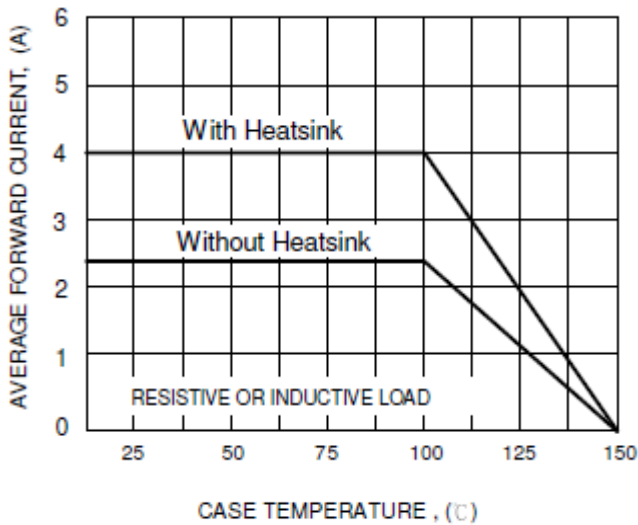


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

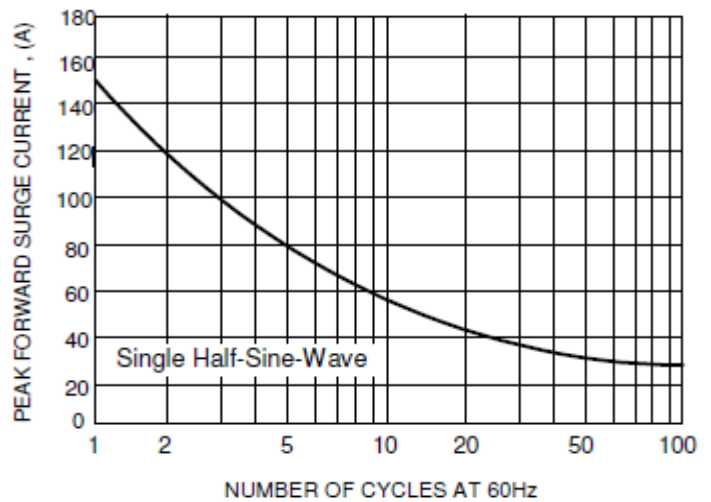


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

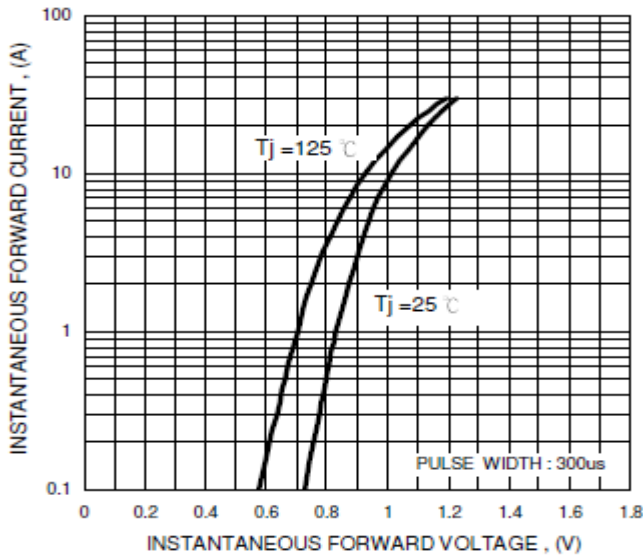


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

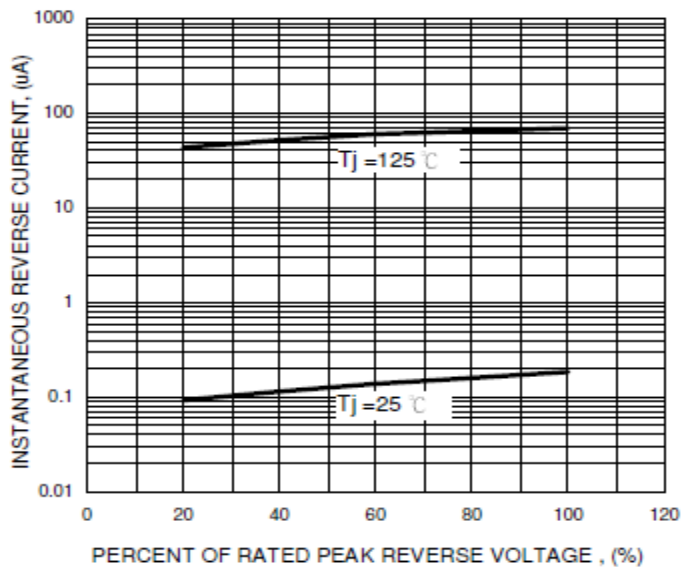


FIG.5 - TYPICAL JUNCTION CAPACITANCE

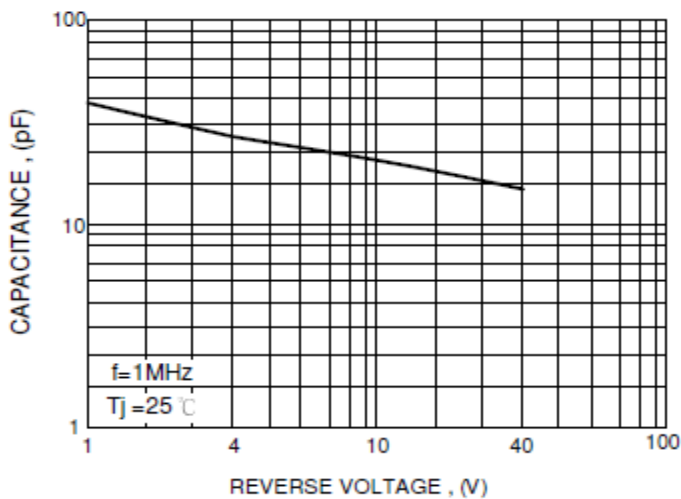
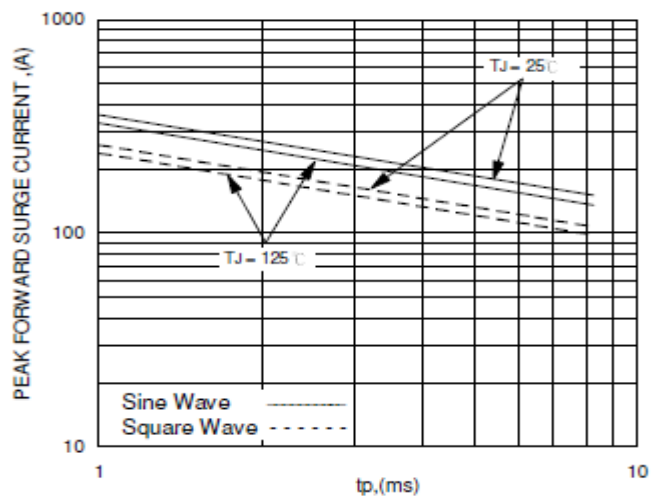


FIG.6 - NON-REPETITIVE SURGE CURRENT

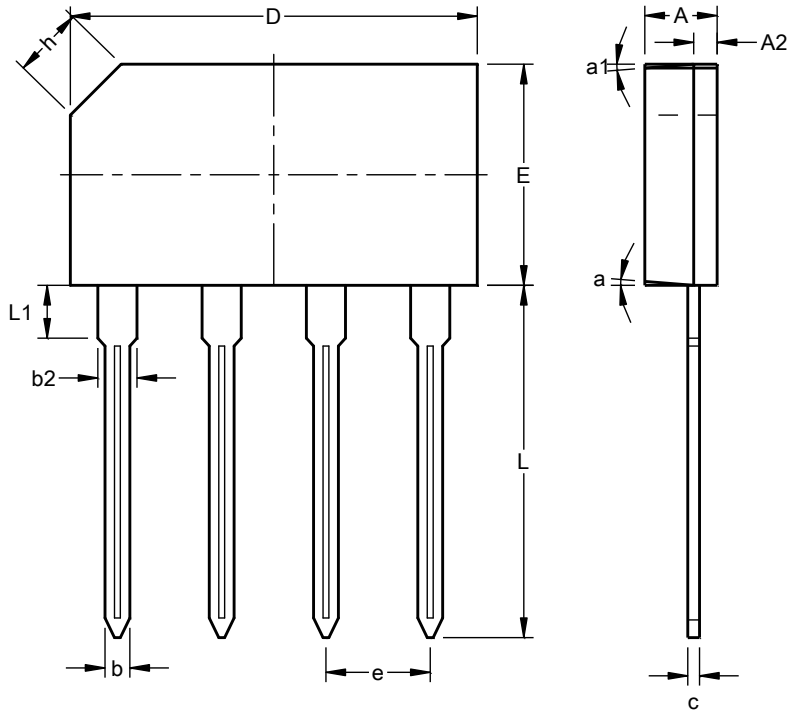


NEW PRODUCT

Package Outline Dimensions

Please see <http://www.diodes.com/package-outlines.html> for the latest version.

GBL



GBL			
Dim	Min	Max	Typ
A	3.30	3.70	--
A2	0.80	1.20	--
b	1.02	1.27	--
b2	1.95	2.35	--
c	0.40	0.60	--
D	20.20	20.80	--
E	10.70	11.30	--
e	4.83	5.33	--
h	--	--	0.35
L	17.50	18.00	--
L1	2.30	2.70	--
a	--	5°	--
a1	--	5°	--
All Dimensions in mm			

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