

CURRENT 6.0 Ampere  
VOLTAGE RANG 50 to 1000 Volts

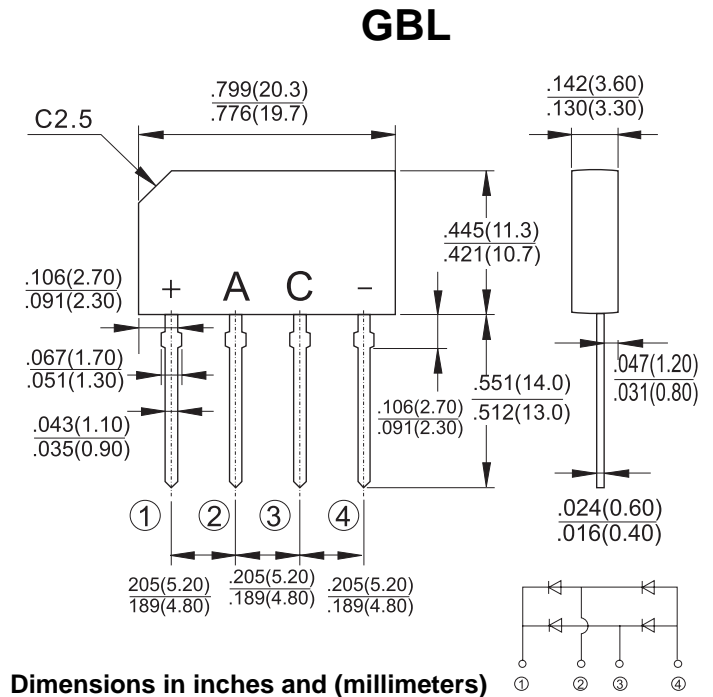
## GBL6005 THRU GBL610

### Features

- ✧ This series is SGS listed under the Recognized Component Index, file number SZXEC1902259902
- ✧ Glass passivated chip junction
- ✧ Ideal for printed circuit board
- ✧ High case dielectric strength
- ✧ Plastic material has Underwriters Laboratory Flammability Classification 94V-0
- ✧ Typical IR less than 0.1 $\mu$ A
- ✧ High surge current capability
- ✧ High temperature soldering guaranteed: 260 $^{\circ}$ C / 10 seconds / .375", (9.5mm) lead lengths.

### Mechanical Data

- ✧ Case: Molded plastic body.
- ✧ Terminals: Plated leads solderable per MIL-STD-750, Method 2026.
- ✧ Weight: 0.06 ounce, 1.7 grams
- ✧ Mounting position: Any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 $^{\circ}$ C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	SYM BOL	GBL 6005	GBL 601	GBL 602	GBL 604	GBL 606	GBL 608	GBL 610	units	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V	
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	560	700	V	
Maximum DC blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V	
Maximum Average Forward (with heatsink Note2) Rectified Current @ $T_c=100^{\circ}$ C (without heatsink)	$I_{F(AV)}$	6.0						2.6		A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	175								A
Maximum Forward Voltage @ 6.0A DC	$V_F$	1.1								V
Drop per element @ 3.0A DC		1.0								
Maximum DC Reverse Current @ $T_j=25^{\circ}$ C at rated DC blocking voltage @ $T_j=125^{\circ}$ C	$I_R$	5.0						500.0		$\mu$ A
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	127								A <sup>2</sup> Sec
Typical Junction Capacitance (Note 1)	$C_J$	55								pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	4.2								$^{\circ}$ C/W
Storage Temperature	$T_{STG}$	-55 to +150								$^{\circ}$ C
Operating Junction Temperature	$T_J$	-55 to +150								$^{\circ}$ C

#### Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.

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**Rating and Characteristic Curves** (TA=25°C Unless otherwise noted)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

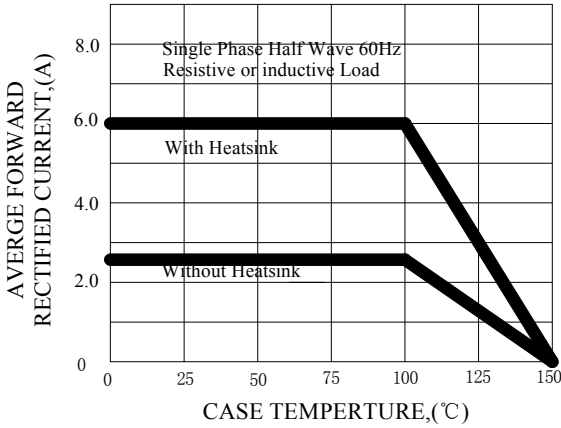


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

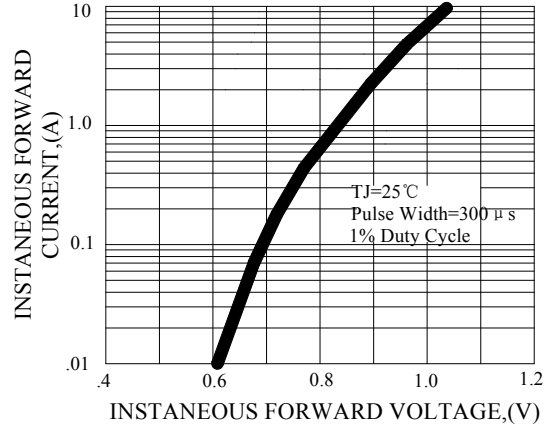


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

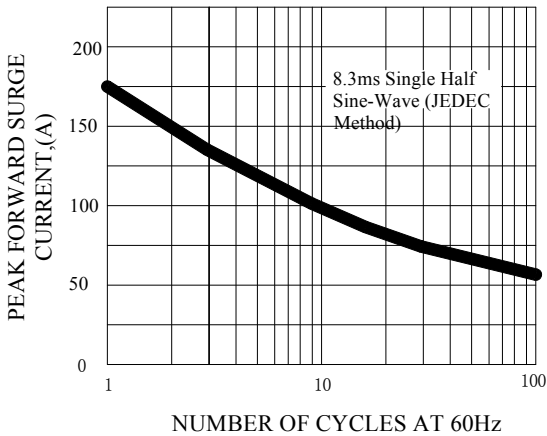


FIG.4-TYPICAL JUNCTION CAPACITANCE

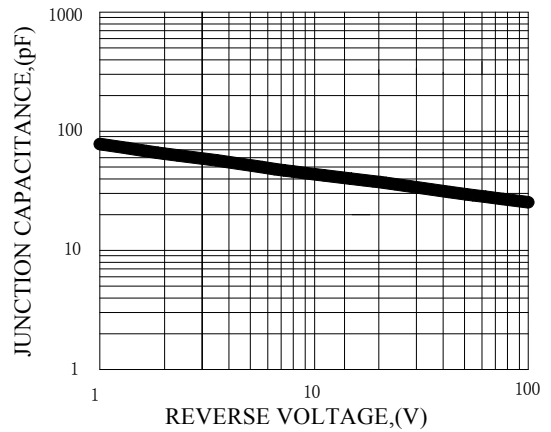


FIG.5-TYPICAL REVERSE CHARACTERISTICS

