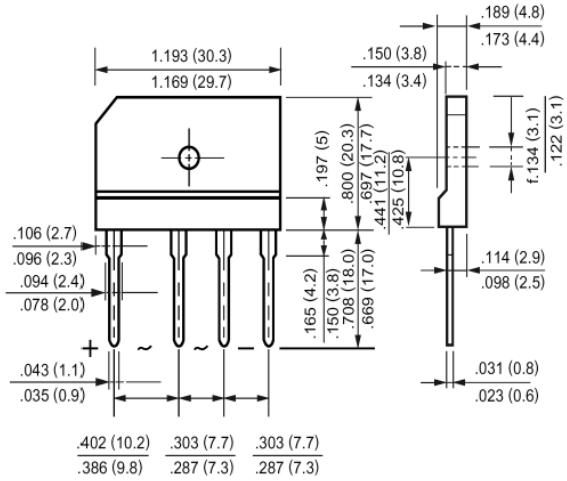
GBJ15005 THRU GBJ1510

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER
REVERSE VOLTAGE: 50 to 1000 V
FORWARD CURRENT: 15 A

GBJ

Features
- Glass passivated chip junction
- Reliable low cost construction utilizing molded plastic technique
- Ideal for printed circuit board
- Low reverse leakage current
- Low forward voltage drop
- High surge current capabiliy



Dimensions in inches and (millimeters)

Mechanical data
- Case:Molded plastic, GBJ
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Leads solderable per MIL-STD-202 method 208 guaranteed
- Mounting Position: Any

Absolute Maximum Ratings and Characteristics
Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbols	GBJ 15005	GBJ 1501	GBJ 1502	GBJ 1504	GBJ 1506	GBJ 1508	GBJ 1510	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 Rectified Current with Heatsink at T_C = 100 °C	$I_{(AV)}$	15							A
Peak Forward Surge Current, 8.3 ms Single Half-Sine -Wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							A
Maximum Forward Voltage at 7.5 A DC and 25 °C	V_F	1.05							V
Maximum Reverse Current at T_A = 25 °C at Rated DC Blocking Voltage T_A = 125 °C	I_R	10 500							μA
Typical Junction Capacitance [1]	C_J	60							pF
Typical Thermal Resistance [2]	$R_{\theta JC}$	0.8							°C/W
Operating and Storage Temperature Range	T_J,T_S	-55 to +150							°C

[1] Measured at 1 MHz and applied reverse voltage of 4 VDC.
[2] Thermal resistance from junction to case with device mounted on 300 mm X 300 mm X 1.6 mm Cu plate heatsink.

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FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

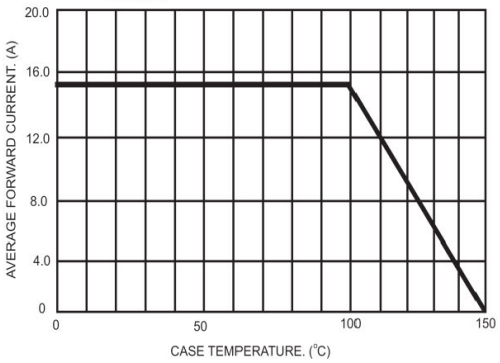

FIG.2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

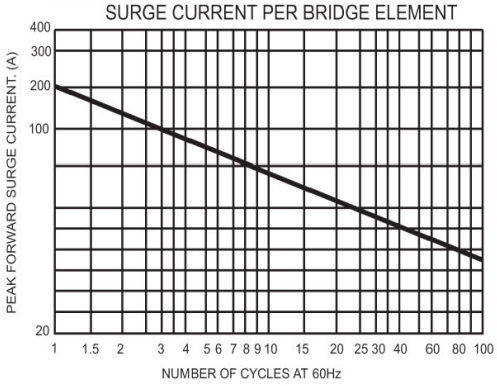

FIG.3- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

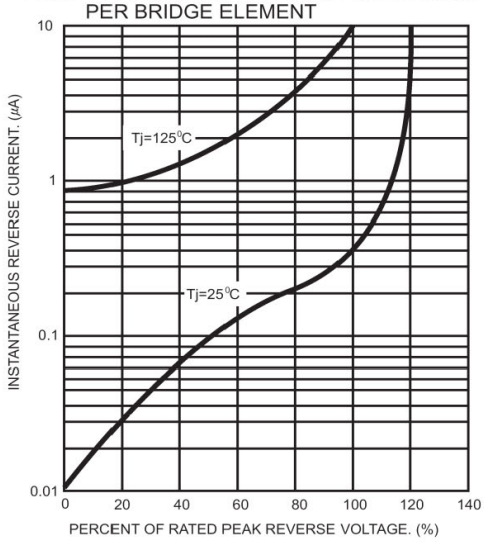

FIG.4- TYPICAL FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

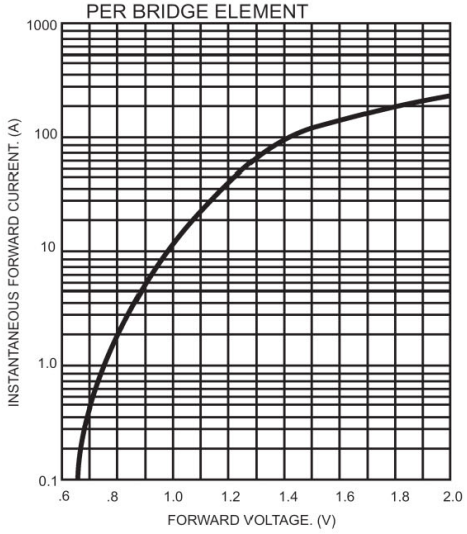

FIG.5- TYPICAL TRANSIENT THERMAL IMPEDANCE