GBJ60X SERIES

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

产　品　规　格　确　认　书

GBJ6005 THRU GBJ610

GLASS PASSIVATED SINGLE-PHASE BRIDGE RECTIFIER

康比電子
HORNBY ELECTRONIC

REVERSE VOLTAGE: 50 to 1000 VOLTS

FORWARD CURRENT: 6.0 AMPERE

FEATURES

· Glass passivated chip junction

· Reliable low cost construction utilizing molded
  plastic technique

· Ideal for printed circuit board

· Low forward voltage drop

· Low reverse leakage current

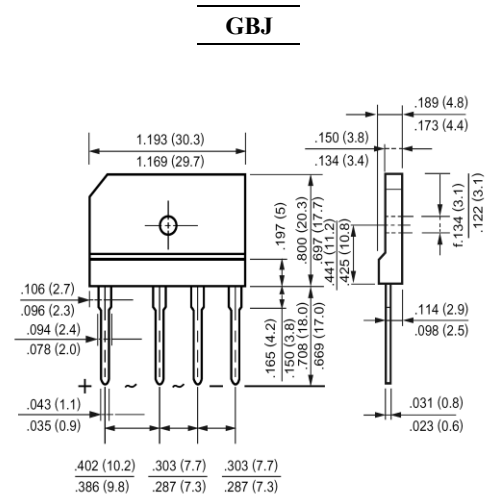· High surge current capability

MECHANICAL DATA

Case: Molded plastic, GBJ

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202,

method 208 guaranteed

Mounting position: Any

Weight: 0.23ounce, 6.6gram

GBJ

Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Ratings at 25 ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

	Symbols	GBJ6005	GBJ601	GBJ602	GBJ604	GBJ606	GBJ608	GBJ610	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	**Volts**
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	**Volts**
Maximum DC Blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	**Volts**
Maximum Average Forward Rectified Current with Heatsink at T_C=110	$I_{(AV)}$	6.0							**Amp**
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	150							**Amp**
Maximum Forward Voltage Drop per Element at 3.0A DC and 25	V_F	1.0							**Volts**
Maximum Reverse Current at T_A=25 at Rated DC Blocking Voltage T_A=125	I_R	5.0 500							**uAmp**
Typical Junction Capacitance (Note 1)	C_J	55							**pF**
Typical Thermal Resistance (Note 2)	R_{0JC}	1.8							**/W**
Operating and Storage Temperature Range	T_J Tstg	-55 to +150							

NOTES:

1- Measured at 1 MH_Z and applied reverse voltage of 4.0 VDC.

2- Thermal Resistance from Junction to Case with Device Mounted on 75mm x 75mm x 1.6mmCu Plate Heatsink.

RATINGS AND CHARACTERISTIC CURVES

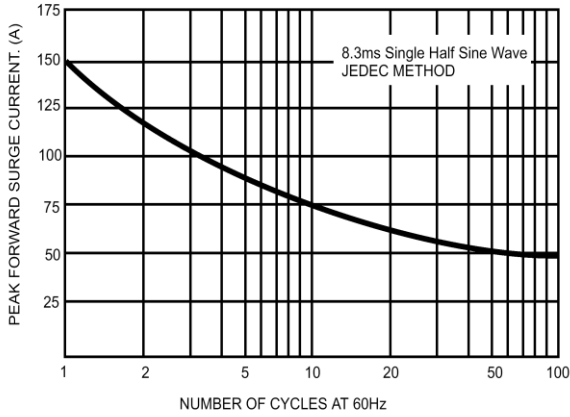FIG.1- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER BRIDGE ELEMENT

8.3ms Single Half Sine Wave
JEDEC METHOD

PEAK FORWARD SURGE CURRENT. (A)

NUMBER OF CYCLES AT 60Hz

FIG.2- MAXIMUM FORWARD CURRENT DERATING CURVE

AVERAGE FORWARD CURRENT. (A)

CASE TEMPERATURE. (^{o}C)
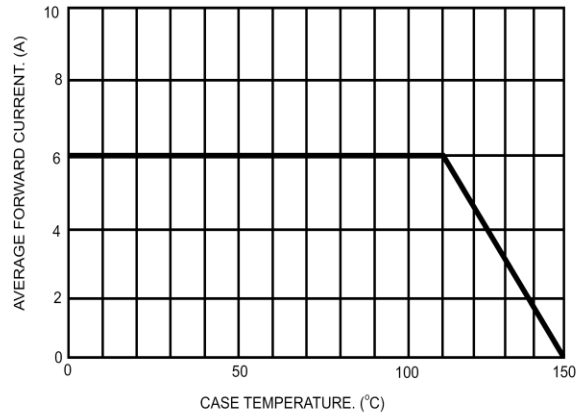
FIG.3- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER BRIDGE ELEMENT

INSTANTANEOUS FORWARD CURRENT. (A)

$Tj=25^{o}C$
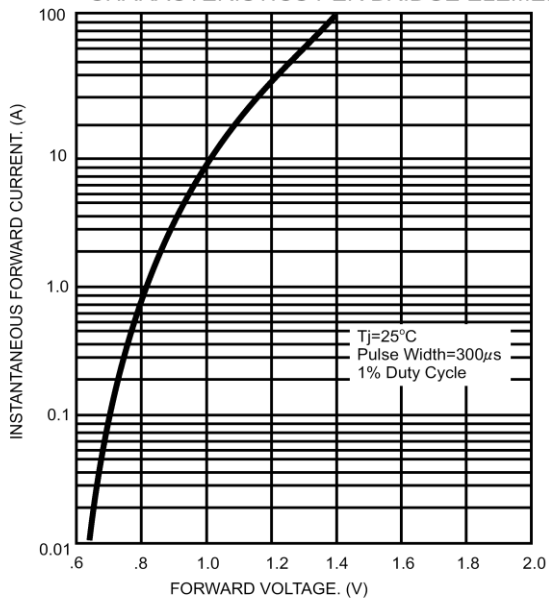Pulse Width=$300\mu s$
1% Duty Cycle

FORWARD VOLTAGE. (V)

FIG.4- TYPICAL REVERSE CHARACTERISTICS PER BRIDGE ELEMENT

INSTANTANEOUS REVERSE CURRENT. (μA)

$Tj=125^{0}C$

$Tj=25^{0}C$

PERCENT OF RATED PEAK REVERSE VOLTAGE. (%)