GBU6005 THRU GBU610

SINGLE-PHASE BRIDGE RECTIFIER GLASS PASSIVATED BRIDGE RECTIFIERS
REVERSE VOLTAGE 50 to 1000 Volts FORWARD CURRENT 6.0 Ampere

FEATURES

◆Rating to 1000V PRV

◆Ideal for printed circuit board

◆Reliable low cost construction utilizing molded plastic Technique

◆The plastic material has UL flammability classification 94V-0

◆Electrically isolated base-1500 Volts

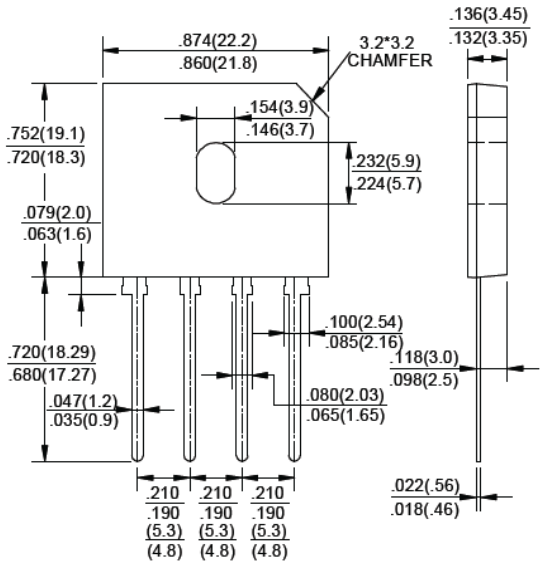
Mechanical Data

◆Polarity : As marked on Body

◆Weight : 0.15 ounces, 4.0 grams

◆Mounting position : Any

GBU



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ ambient temperature unless otherwise specified.

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

PARAMETER	SYMBOL	GBU 6005	GBU 601	GBU 602	GBU 604	GBU 606	GBU 608	GBU 610	UNIT
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 Note 2) Rectified Current, @ T_C=100℃(without heatsink)	$I_{(AV)}$	6.0 2.8							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	175							A
Maximum Forward Voltage at 3.0A DC	V_F	1.0							V
Maximum DC Reverse Current @ T_J = 25℃ at Rated DC blocking voltage @ T_J = 125℃	I_R	5.0 500							μA
I^2t Rating for fusing (t < 8.3ms)	I^2t	127							A^2S
Typical Junction Capacitance per element (Note 1)	C_J	45							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	2.2							℃/W
Operating Temperature Range	T_J	-55 to +150							℃
Storage Temperature Range	T_{STG}	-55 to +150							℃

Note: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Device mounted on 75mm x 75mm x 1.6mm Cu Plate Heatsink.

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RATING AND CHARACTERISTIC CURVES GBU6005 THRU GBU610

FIG.1-FORWARD CURRENT DERATING CURVE

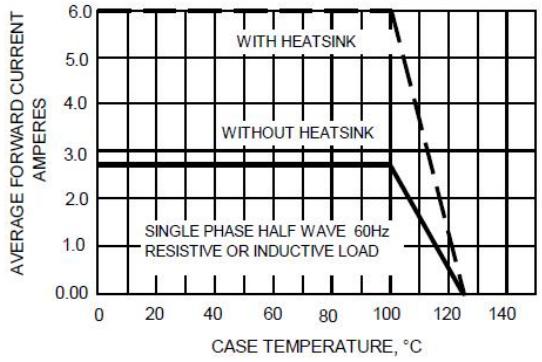


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

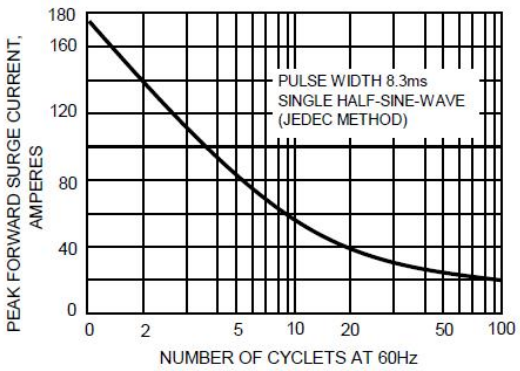


FIG.3-TYPICAL JUNCTION CAPACITANCE

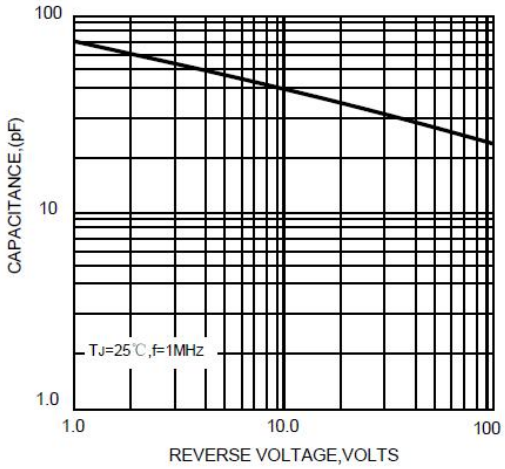


FIG.4-TYPICAL FORWARD CHARACTERISTICS

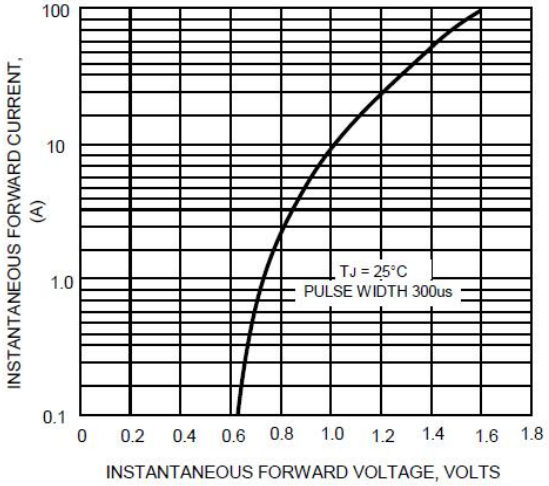
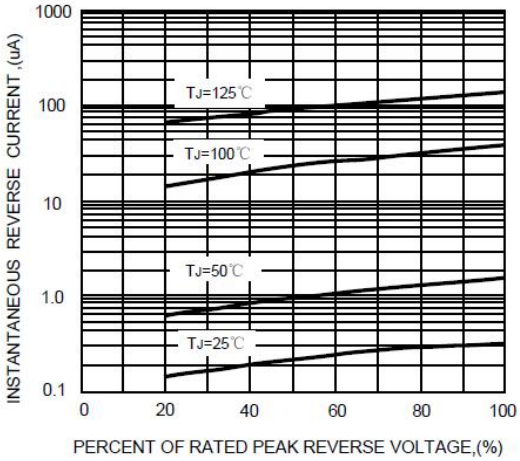


FIG.5-TYPICAL REVERSE CHARACTERISTICS



Note: Specifications are subject to change without notice. For more detail and update, please visit our website.