

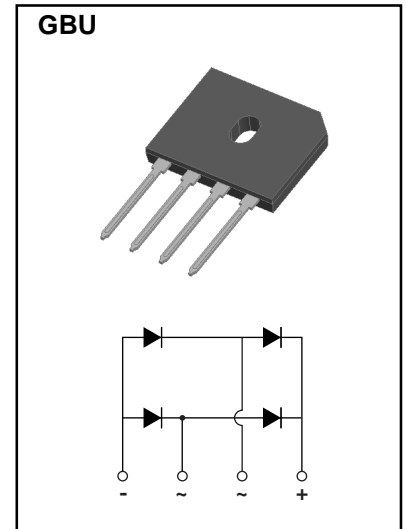
## GBU Plastic-Encapsulate Bridge Rectifier

### Features

- $I_o$  10A
- VRRM 600V
- High surge current capability
- Ultra low leakage reverse current
- Ideal for printed circuit boards

### Mechanical Data

- Case: GBU molded plastic
- Molding compound: UL flammability classification rating 94V-0
- Terminals: Leads solderable per MIL-STD-750
- Mounting position: Any



### Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	GBU1006L
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		600
Maximum RMS Voltage	$V_{RMS}$	V		420
Maximum DC blocking Voltage	$V_{DC}$	V		600
Average Rectified Output Current	$I_o$	A	60Hz sine wave, R-load	With heatsink $T_c = 100^\circ\text{C}$
				Without heatsink $T_c = 100^\circ\text{C}$
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	60Hz sine wave, 1 cycle, $T_j = 25^\circ\text{C}$	240
Current Squared Time	$I^2t$	$\text{A}^2\text{S}$	$1\text{ms} \leq t < 8.3\text{ms}$ $T_j = 25^\circ\text{C}$ , Rating of per diode	240
Storage Temperature	$T_{stg}$	$^\circ\text{C}$		-55 ~+150
Junction Temperature	$T_j$	$^\circ\text{C}$		-55 ~+150

### Electrical Characteristics ( $T_a = 25^\circ\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	$V_{FM}$	V	$I_{FM} = 5\text{A}$ , Pulse measurement, Rating of per diode	0.92
Peak Reverse Current	$I_{RRM1}$	$\mu\text{A}$	$V_{RM} = V_{RRM}$	$T_a = 25^\circ\text{C}$
	$I_{RRM2}$			$T_a = 125^\circ\text{C}$
Thermal Resistance	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient, Without heatsink	35
	$R_{\theta J-C}$		Between junction and case, With heatsink	2.2
Juction Capacitance (Typical)	$C_J$	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.	60

# Typical Characteristics

FIG. 1-FORWARD CURRENT DERATING CURVE

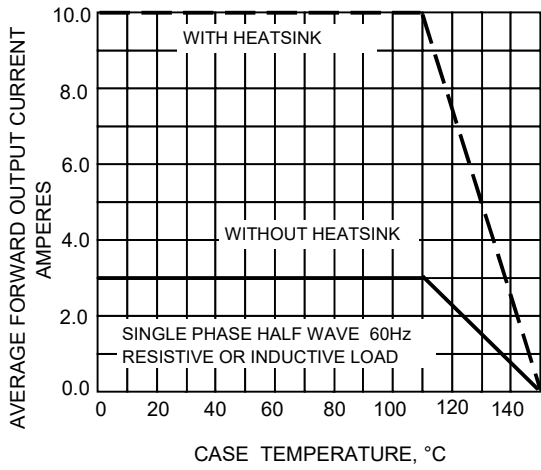


FIG. 2-MAXMUN NON-REPETITIVE SURGE CURRENT

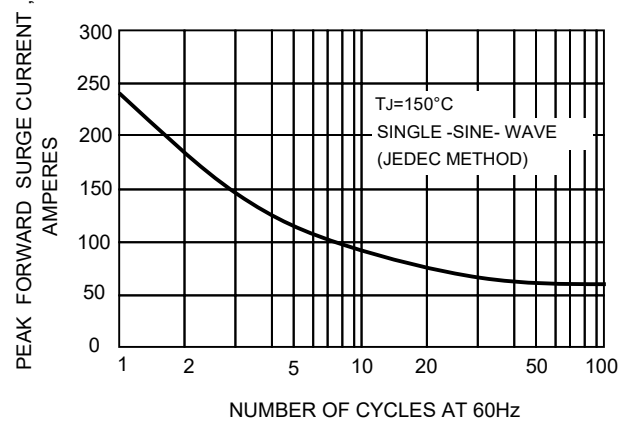


FIG. 3-TYPICAL JUNCTION CAPACITANCE

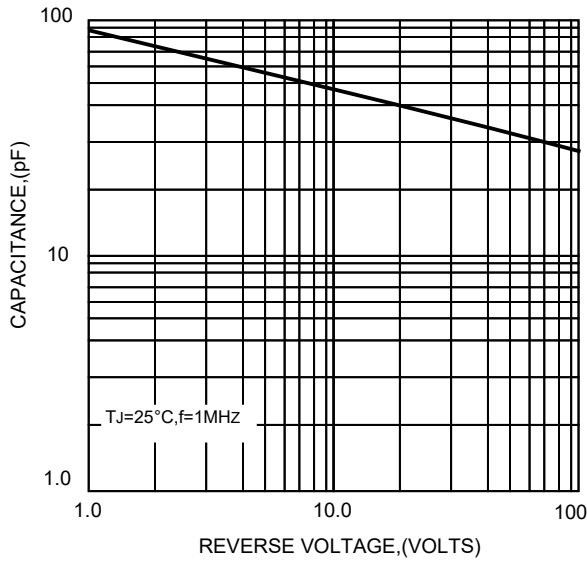


FIG. 4-TYPICAL FORWARD CHARACTERISTICS

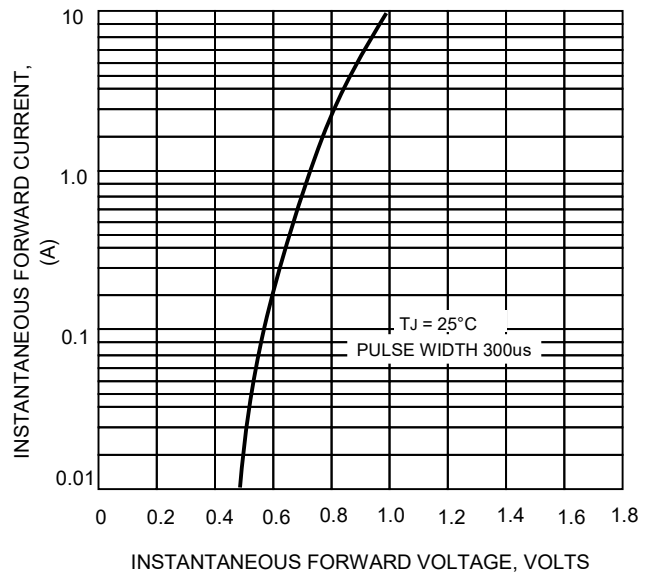
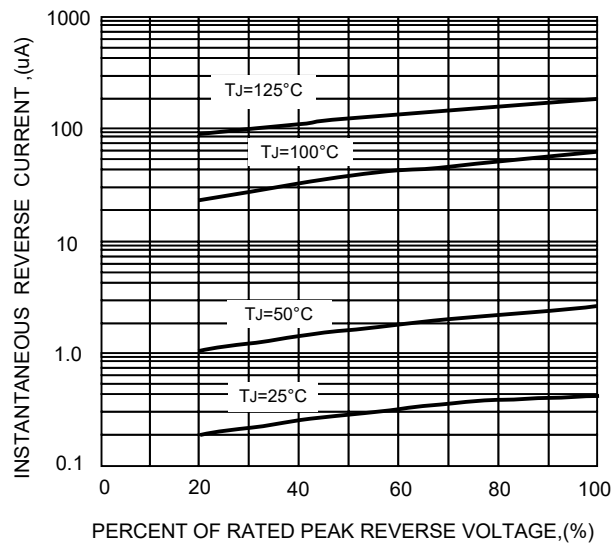
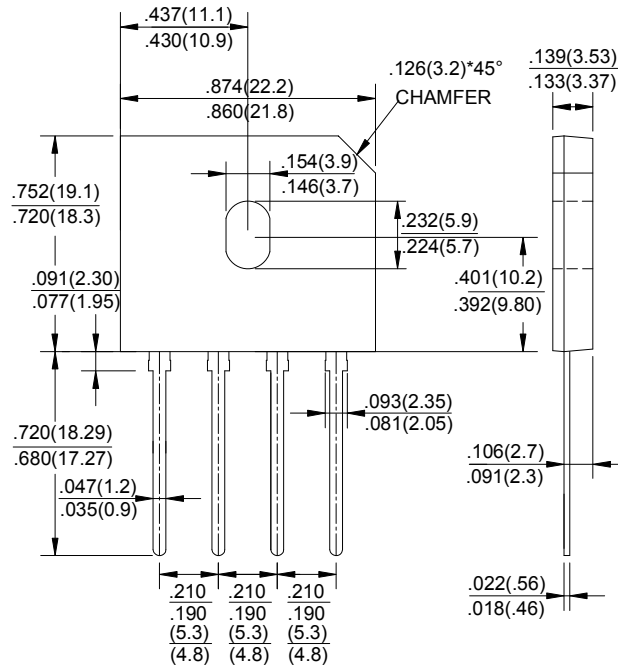


FIG. 5-TYPICAL REVERSE CHARACTERISTICS



# GBU Package Outline Dimensions



Dimensions in inches and (millimeters)