

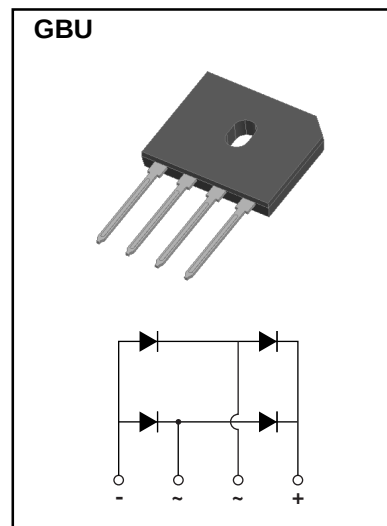
GBU Plastic-Encapsulate Bridge Rectifier

Features

- I_O 6.0A
- VRRM 50V-1000V
- High surge current capability
- Ultra low leakage reverse current
- Ideal for printed circuit boards

Mechical 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	GBU6						
				005	01	02	04	06	08	10
Repetitive Peak Reverse Voltage	V_{RRM}	V		50	100	200	400	600	800	1000
Maximum RMS Voltage	V_{RMS}	V		35	70	140	280	420	560	700
Maximum DC blocking Voltage	V_{DC}	V		50	100	200	400	600	800	1000
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, $T_j = 25^\circ\text{C}$	175						
Current Squared Time	I^2t	A^2S	$1\text{ms} \leq t < 8.3\text{ms}$ $T_j = 25^\circ\text{C}$, Rating of per diode	127						
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	$I_{FM} = 3\text{A}$, Pulse measurement, Rating of per diode		1.1
Peak Reverse Current	I_{RRM1}	μA	$V_{RM} = V_{RRM}$	$T_a = 25^\circ\text{C}$	10
	I_{RRM2}			$T_a = 125^\circ\text{C}$	500
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		4
Juction Capacitance (Typical)	C_J	pF	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.		50

Typical Characteristics

FIG.1-FORWARD CURRENT DERATING CURVE

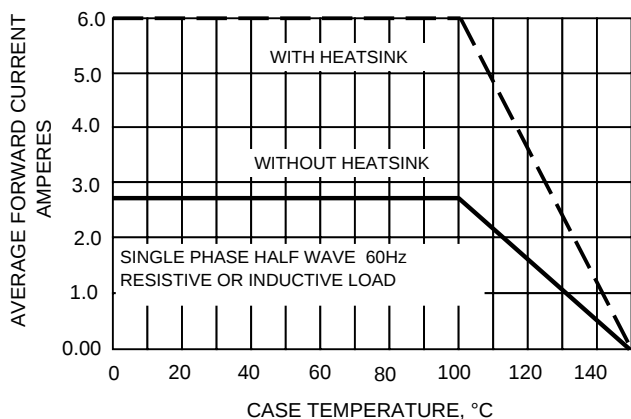


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

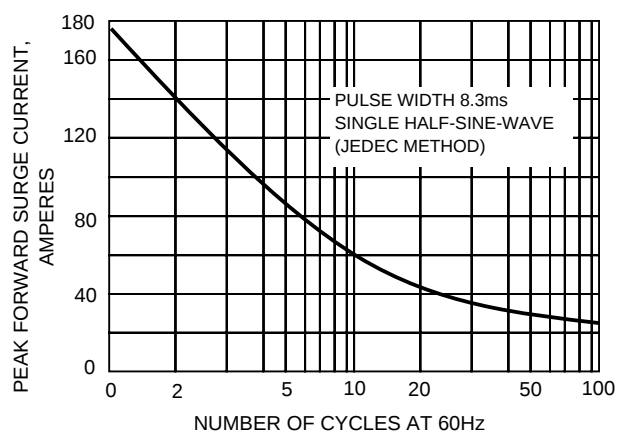


FIG.3-TYPICAL JUNCTION CAPACITANCE

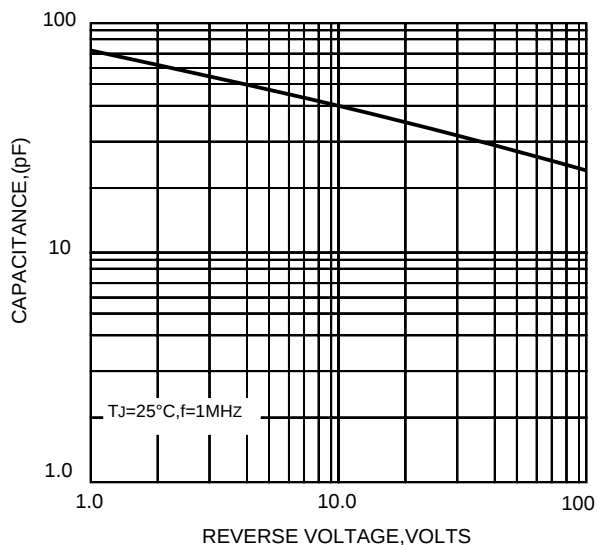


FIG.4-TYPICAL FORWARD CHARACTERISTICS

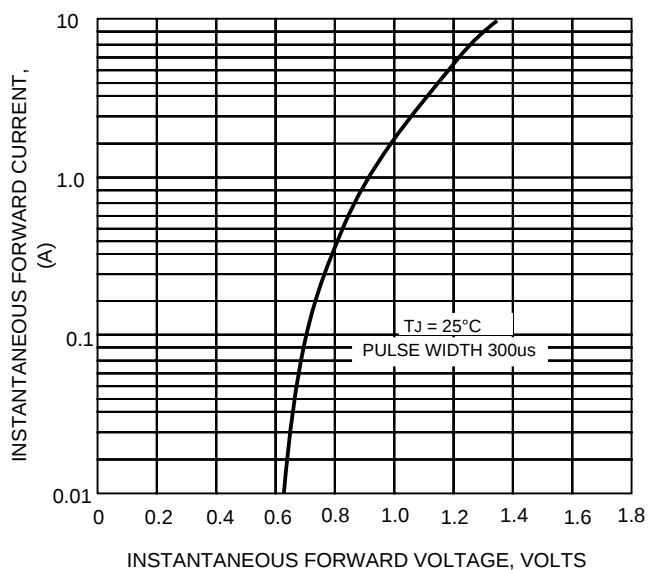
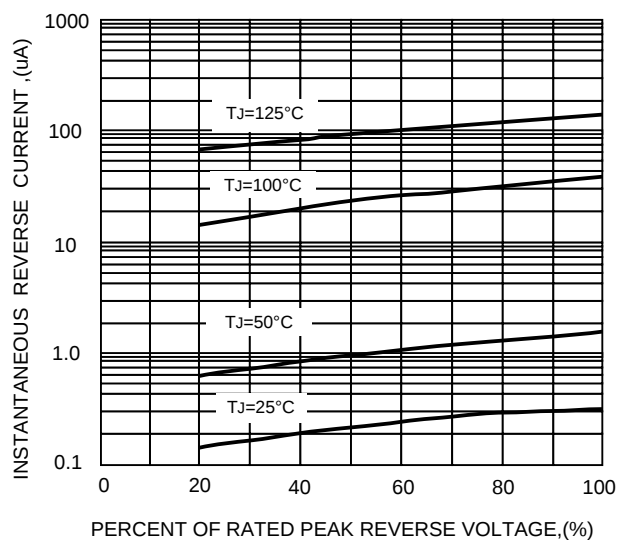
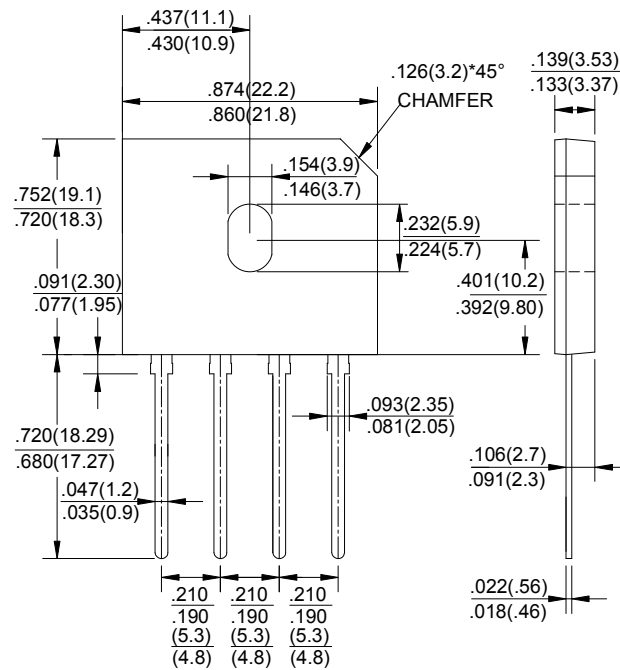


FIG.5-TYPICAL REVERSE CHARACTERISTICS



GBU Package Outline Dimensions



Dimensions in inches and (millimeters)

Ordering Information

Part Number	Package	Shipping Quantity
GBU6005-GBU610	GBU	0.25K

Marking Diagram

