



DONGGUAN NANJING ELECTRONICS LTD.,

GBU Plastic-Encapsulate Bridge Rectifier

GBU20005 THRU GBU2010

General Purpose Bridge Rectifier

Features

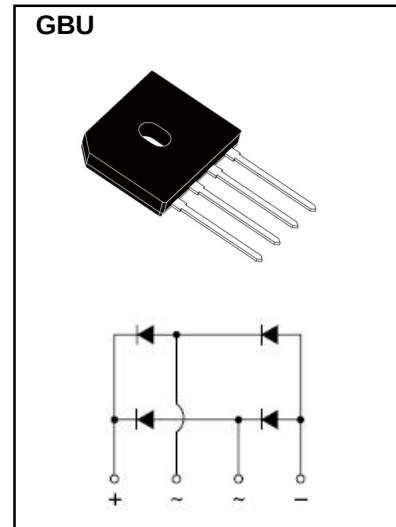
- I_O 20A
- V_{RRM} 50V-1000V
- High surge current capability
- Glass passivated chip

Applications

- General purpose 1 phase Bridge rectifier applications

Marking

- GBU20XX
XX : From 005 To 10



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	GBU20						
				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
Average Rectified Output Current	I _O	A	60Hz sine wave, R-load T _c =100℃	20						
Surge(Non-repetitive)Forward Current	I _{FSM}	A	60Hz half-sine wave, 1 cycle, T _j =25℃	260						
Current Squared Time	I ² t	A ² S	1ms≤t<8.3ms T _j =25℃, Rating of per diode	280						
Storage Temperature	T _{stg}	℃		-55 ~+150						
Junction Temperature	T _j	℃		-55 ~+150						
Dielectric Strength	V _{dis}	KV	Terminals to case, AC 1 minute	2.5						
Mounting Torque	Tor	kg • cm	Recommend torque: 5kg • cm	8						

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

Item	Symbol	Unit	Test Condition	Max
Peak Forward Voltage	V_{FM}	V	$I_{FM} = 10.0\text{A}$, Pulse measurement, Rating of per diode	1.1
Peak Reverse Current	I_{RRM}	μA	$V_{RM} = V_{RRM}$, Pulse measurement, Rating of per diode	10
Thermal Resistance	$R_{\theta J-A}$	$^\circ\text{C}/\text{W}$	Between junction and ambient, Without heatsink	22
	$R_{\theta J-C}$		Between junction and case, With heatsink	1.0

Typical Characteristics

FIG.1-MAXIMUM FORWARD SURGE CURRENT

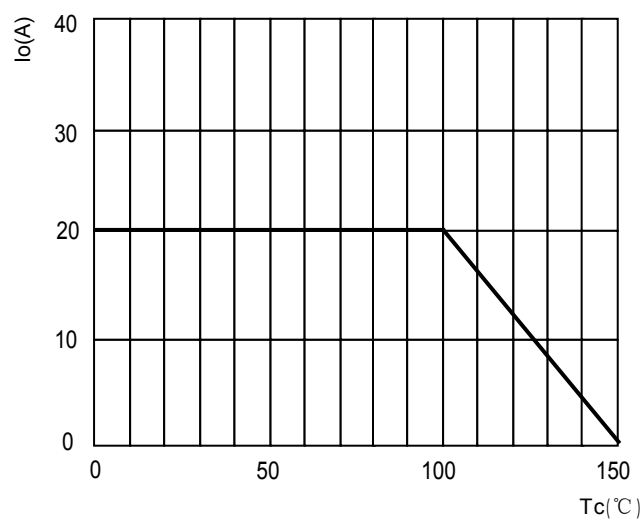


FIG.2-MAXIMUM NON-REPETITIVE SURGE CURRENT

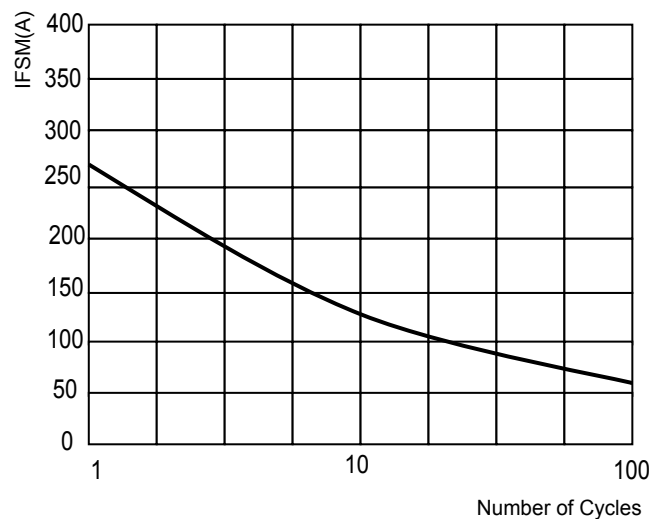


FIG.3-TYPICAL FORWARD CHARACTERISTICS

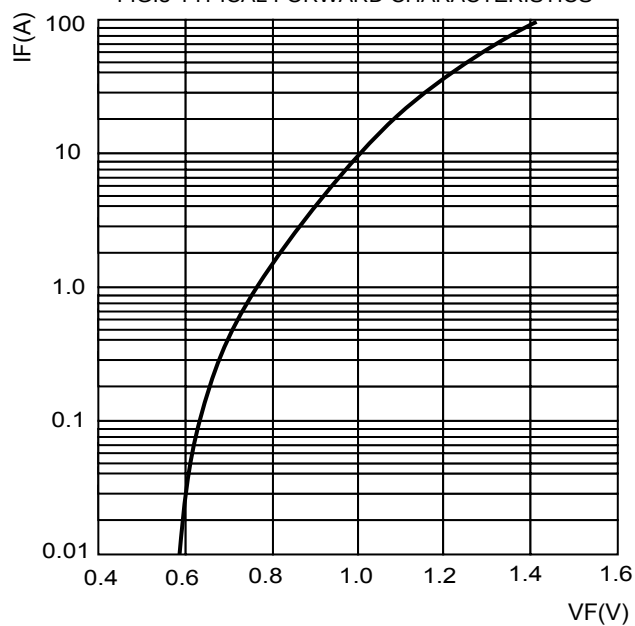


FIG.4-TYPICAL REVERSE CHARACTERISTICS

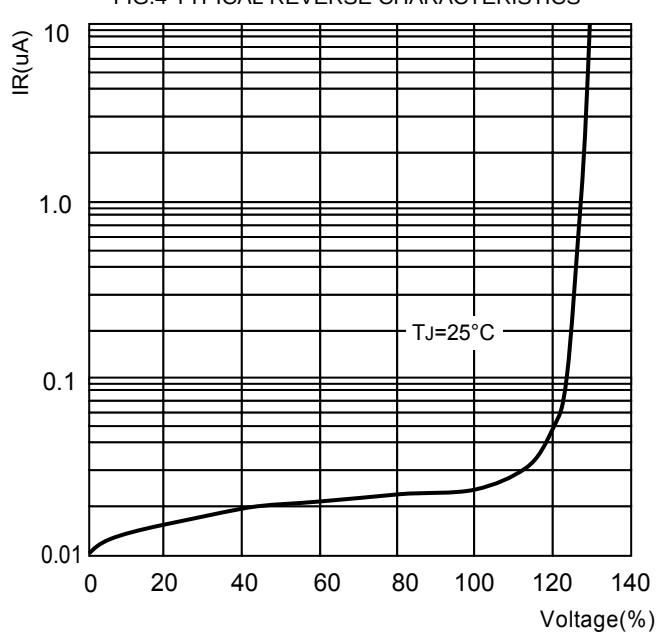
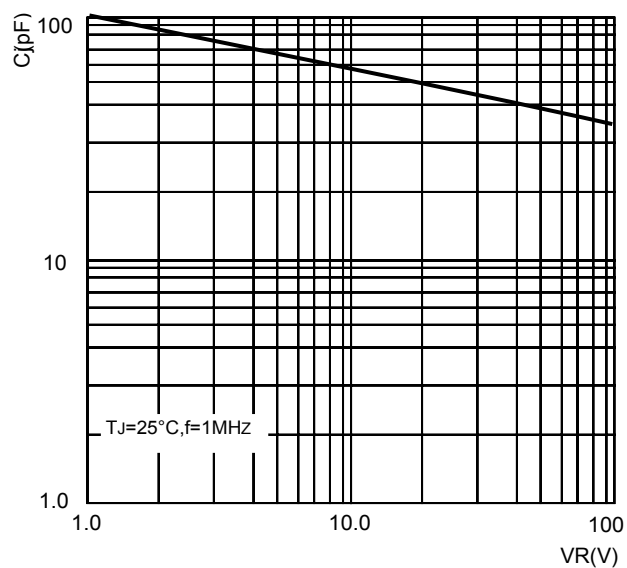
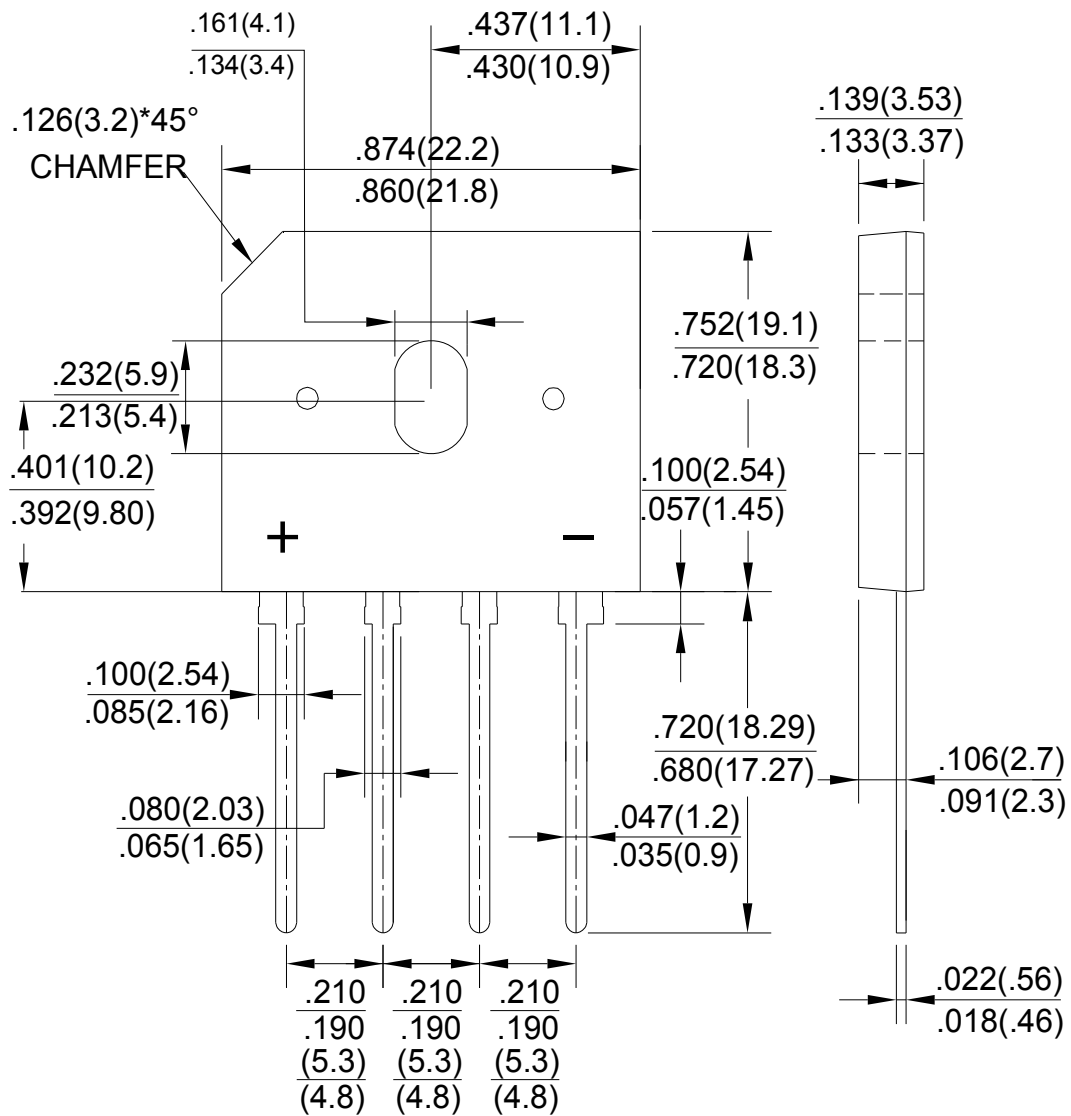


FIG.5-TYPICAL JUNCTION CAPACITANCE



GBU Package Outline Dimensions



Unit: in inches (millimeters)