

GBJ50005 THRU GBJ5010

Bridge Rectifier

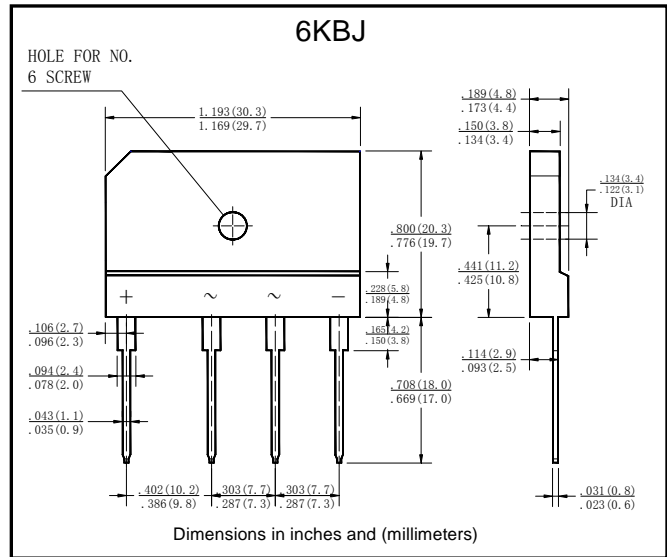
Outline Dimensions and Mark

Features

- I_o 50A
- V_{RRM} 50V~1000V
- Glass passivated chip
- High surge forward current capability

Applications

General purpose 1 phase Bridge rectifier applications



Limiting Values (Absolute Maximum Rating)

Item	Symbol	Unit	Conditions	GBJ50						
				005	01	02	04	06	08	10
Repetitive Peak Reverse Voltage	V_{RRM}	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 $T_a = 25^\circ\text{C}$						
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz sine wave, 1 cycle, $T_j = 25^\circ\text{C}$	450						
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	830						
Storage Temperature	T_{stg}	$^\circ\text{C}$		-55 ~ +150						
Junction Temperature	T_j	$^\circ\text{C}$		-55 ~ +150						
Dielectric Strength	V_{dis}	KV	Terminals to case, AC 1 minute	2.5						
Mounting Torque	T_{or}	$\text{kg} \cdot \text{cm}$	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	$I_{FM} = 25.0\text{A}$, 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	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient, Without heatsink	22
	$R_{\theta J-C}$		Between junction and case, With heatsink	0.8

GBJ50005 THRU GBJ5010

Characteristics(Typical)

FIG1:Io-Tc Curve

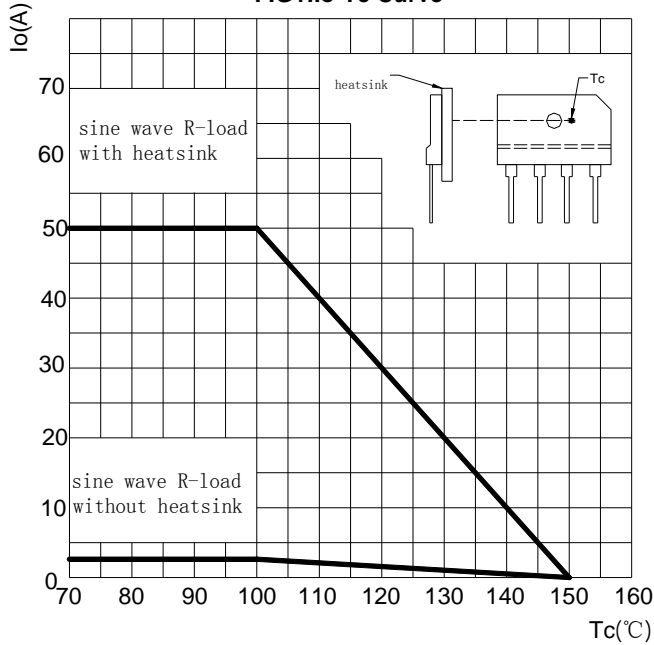


FIG2:Surge Forward Current Capadility

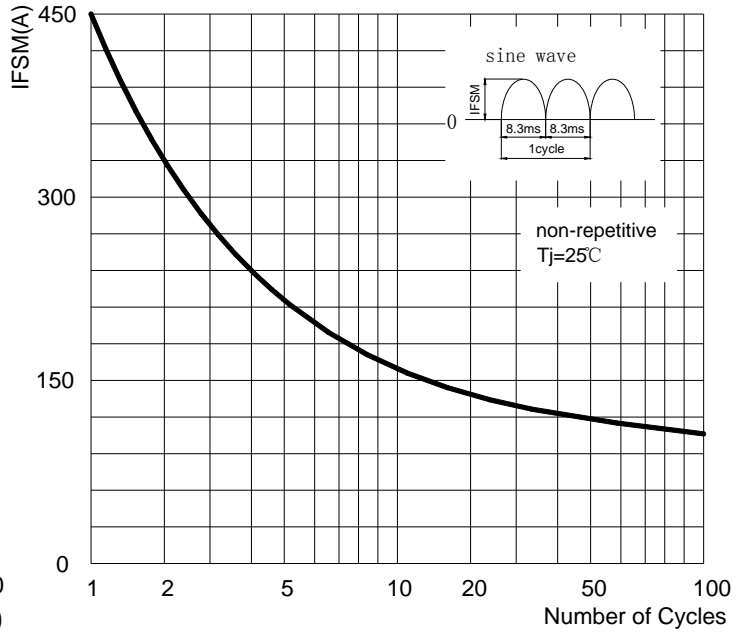


FIG3: TYPICAL FORWARD CHARACTERISTICS

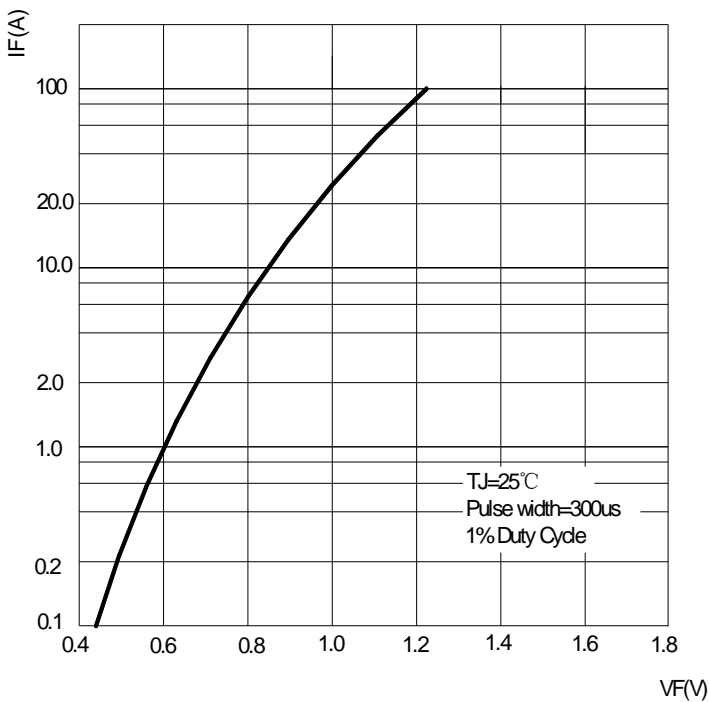


FIG4:Typical Reverse Characteristics

