

GBJ5060HS THRU GBJ50120HS

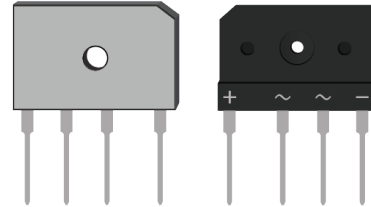
50A, 600V to 1200V

Standard Single-Phase Bridge Rectifiers

FEATURES

- Glass passivated chip junction
- High surge current capability
- Low reverse leakage current
- High temperature soldering guaranteed: 270°C/10 seconds
- RoHS compliant

GBJHS



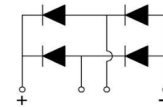
RoHS
COMPLIANT

HALOGEN
FREE
AVAILABLE

MECHANICAL DATA

- Case: GBJHS
- Case material: molding compound meets UL 94V-0 flammability rating
- Polarity: as marked on case body

Circuit diagram



TYPICAL APPLICATION

General purpose use in Household electric appliances, industrial power supply, industrial automation equipment.

MAXIMUM RATINGS

$T_A=25^\circ\text{C}$ unless otherwise noted

Parameter	Symbol	GBJ 5060HS	GBJ 5080HS	GBJ 50100HS	GBJ 50120HS	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	600	800	1000	1200	V
Average Forward Rectified Current (with heatsink, $T_C=100^\circ\text{C}$)	$I_{F(AV)}$	50				A
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	I_{FSM}	500				A
Rating For Fusing (1ms<t<8.3ms, $T_J=25^\circ\text{C}$, Rating of per diode)	I^2t	1037				A^2s
Operating Junction Temperature Range	T_J	-55 to +150				$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150				$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

$T_A=25^\circ\text{C}$ unless otherwise noted

Parameter	Test Conditions	Symbol	Value	Unit
Peak Forward Voltage@ $I_F=25\text{A}$ (Pulse measurement, Rate of per diode)	$T_A=25^\circ\text{C}$	V_F	1.1	V
Reverse Current@ $V_R=V_{RRM}$ (Pulse measurement, Rate of per diode)	$T_J=25^\circ\text{C}$	I_R	5	μA
	$T_J=125^\circ\text{C}$		500	
Typical Thermal Resistance	without heatsink	$R_{\theta JA}$	22	$^\circ\text{C}/\text{W}$
	with heatsink	$R_{\theta JC}$	0.69	

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RATINGS AND CHARACTERISTIC CURVES

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FIG.1 Derating Curve For Output Rectified Current

FIG.2 Maximum Non-Repetitive Peak Forward Surge Current

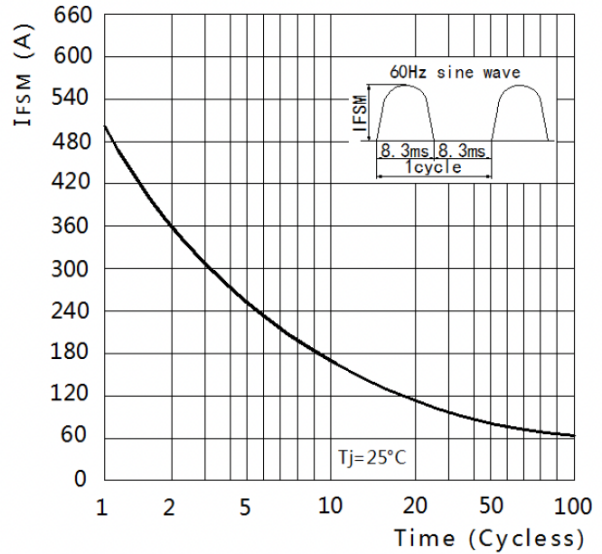
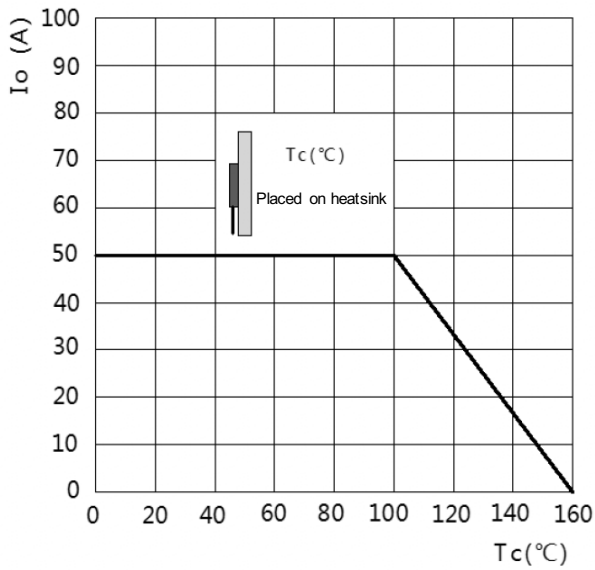
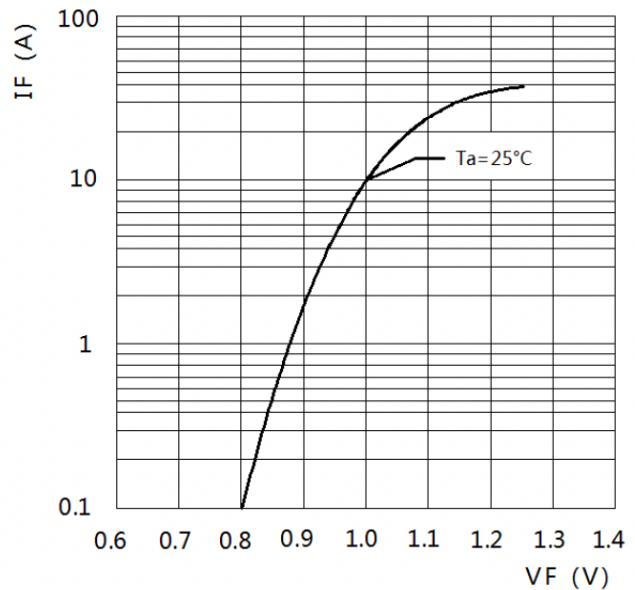
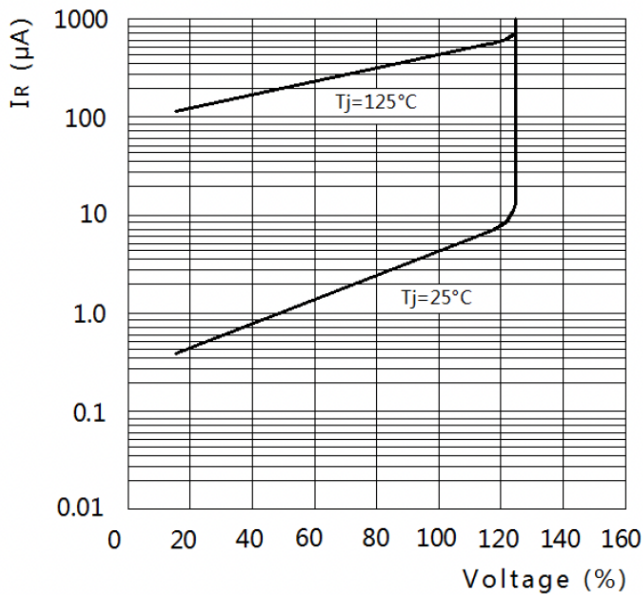


FIG.3 Typical Reverse Characteristics

FIG.4 Typical Forward Characteristics

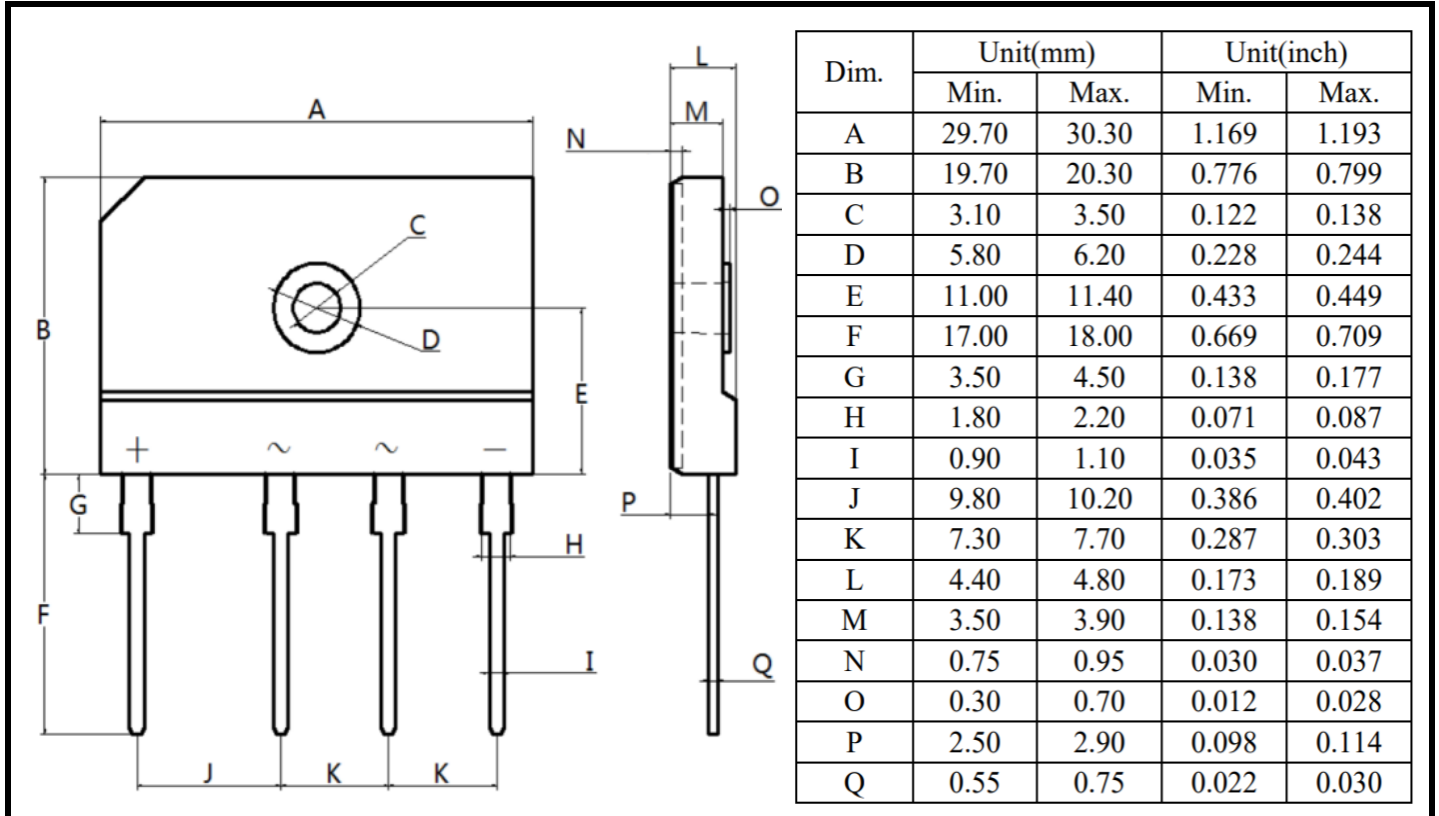


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PACKAGE OUTLINE DIMENSIONS



PACKING INFORMATION

Package	Inner Box Qty.(PCS)	Carton Qty.(PCS)
GBJHS	250	2,000