

# GBJ6060HS THRU GBJ60120HS

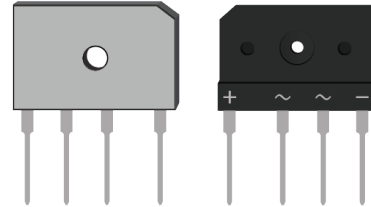
## 60A, 600V to 1200V

### 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



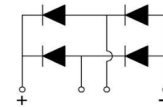
RoHS  
COMPLIANT

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 6060HS	GBJ 6080HS	GBJ 60100HS	GBJ 60120HS	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	600	800	1000	1200	V
Average Forward Rectified Current (with heatsink, $T_C=100^\circ\text{C}$ )	$I_{F(AV)}$	60				A
Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load)	$I_{FSM}$	550				A
Rating For Fusing (1ms<t<8.3ms, $T_J=25^\circ\text{C}$ , Rating of per diode)	$I^2t$	1255				$\text{A}^2\text{s}$
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@ $I_F=30\text{A}$ (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	$\mu\text{A}$
	$T_J=125^\circ\text{C}$		500	
Typical Thermal Resistance	without heatsink	$R_{\theta JA}$	22	$^\circ\text{C}/\text{W}$
	with heatsink	$R_{\theta JC}$	0.65	

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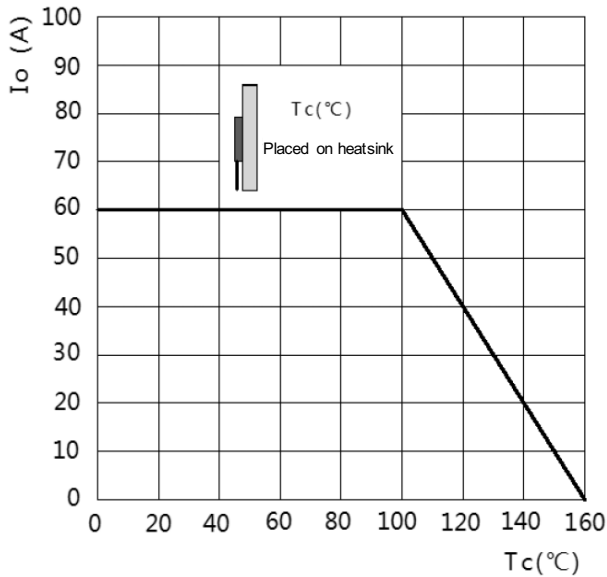
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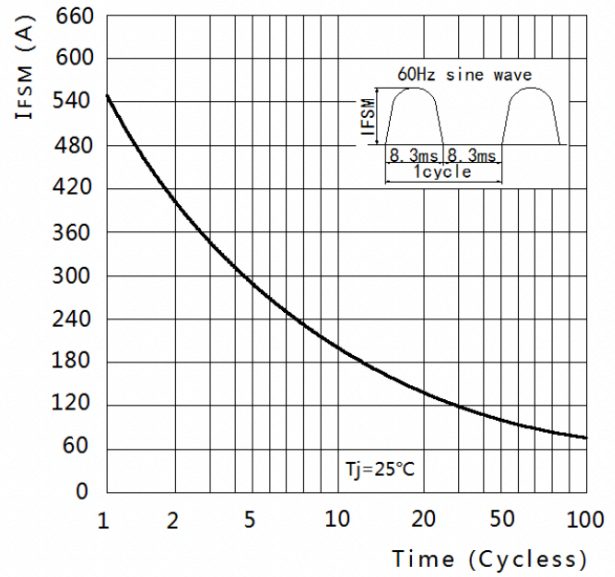
#### RATINGS AND CHARACTERISTIC CURVES

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

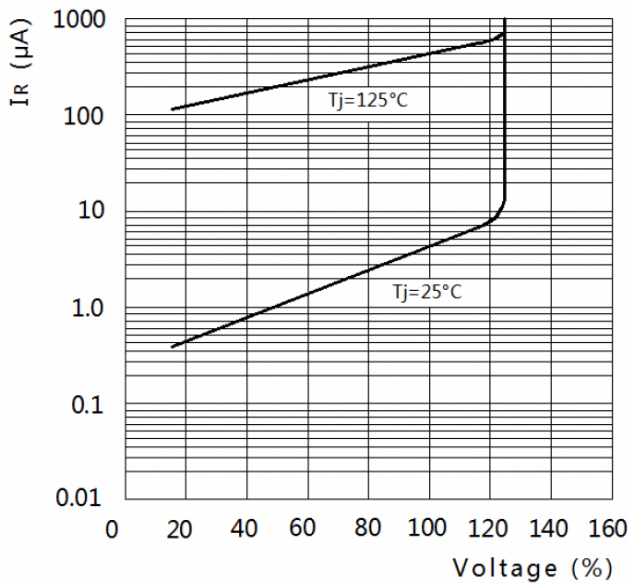
**FIG.1 Derating Curve For Output Rectified Current**



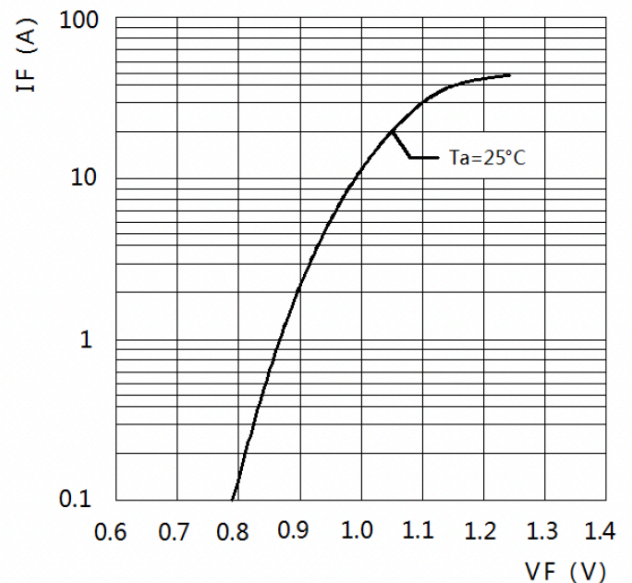
**FIG.2 Max. Non-Repetitive Peak Forward Surge Current**



**FIG.3 Typical Reverse Characteristics**



**FIG.4 Typical Forward Characteristics**

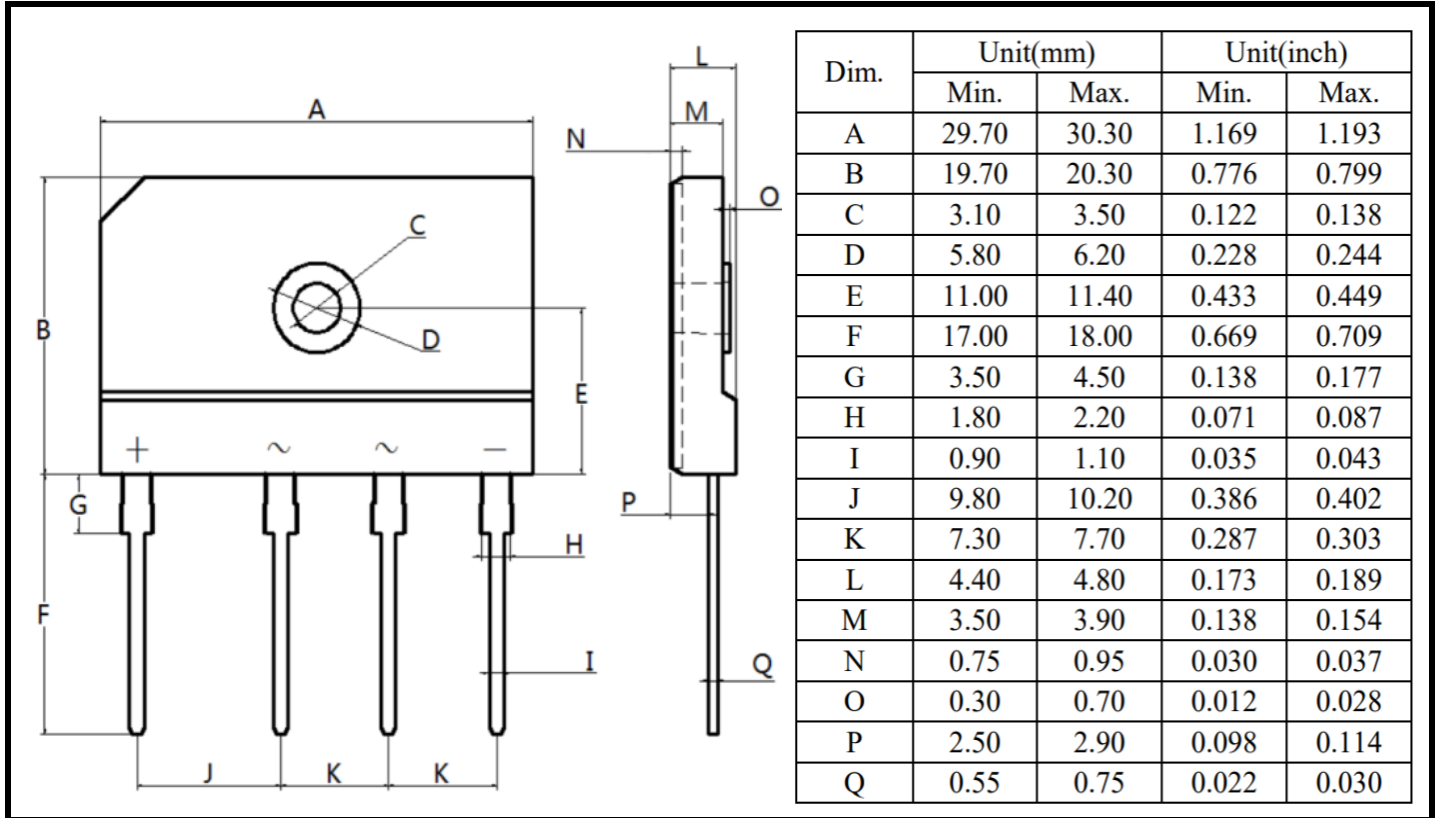


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#### PACKAGE OUTLINE DIMENSIONS



#### PACKING INFORMATION

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