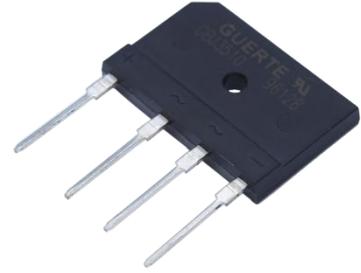


Single Phase Rectifier Bridge

V_{RRM} 200 to 1200V
 I_D 50 Amp

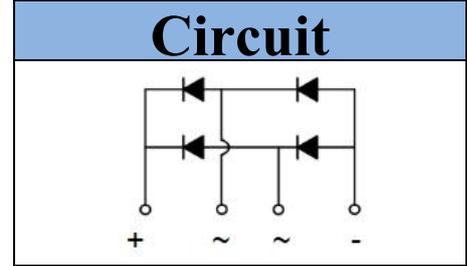


Features

- Glass passivated chip
- Ideal for printed circuit boards
- High surge current capability
- High temperature soldering guaranteed:265°C/10 seconds

Applications

- Single phase rectifiers for power supplies
- Rectifiers for DC motor field supplies
- Industrial automation equipment
- Input rectifiers for inverter



Module Type

Type	V_{RRM}	V_{RSM}
GBJ5002	200V	300V
GBJ5004	400V	500V
GBJ5006	600V	700V
GBJ5008	800V	900V
GBJ5010	1000V	1100V
GBJ5012	1200V	1300V

Maximum Ratings

Symbol	Item	Conditions	Values	Unit
I_D	Output Current	Single Phase, Sin Full Wave $T_c = 95^\circ C$	50	A
I_{FSM}	Surge Forward Current	$T_j = 25^\circ C, t = 50Hz(10ms), V_R = 0V$	500	A
I^2t	Circuit Fusing Consideration	$t = 10ms T_j = 25^\circ C$	1250	A ² s
V_{ISO}	Isolation Breakdown Voltage	AC 50Hz/60Hz; R.M.S; 1min	2500	V
T_j	Operating Junction Temperature		-40 to +150	°C
T_{stg}	Storage Temperature		-40 to +150	°C
M_s	Mounting Torque	(Recommended torque:0.65 N·m)	0.8	N·m
Weight	Module (Approximately)		7	g

Thermal Characteristics

Symbol	Item	Conditions	Values	Unit
$R_{th(j-c)}$	Thermal Impedance, Max	Junction to Case(Per Total)	0.7	°C/W
		Junction to Case(Per Diode)	2.8	°C/W

Electrical Characteristics

Symbol	Item	Conditions	Values			Unit
			Min.	Typ.	Max.	
V_{FM}	Forward Voltage Drop, Max	$T_j = 25^\circ C I_F = 25A$	—	—	1.1	V
I_{RRM}	Repetitive Peak Reverse Current, Max	$T_j = 25^\circ C V_R = V_{RRM}$	—	—	5	uA
		$T_j = 150^\circ C V_R = V_{RRM}$	—	—	0.5	mA
V_{T0}	Threshold Voltage, for power loss calculation only	$T_j = 125^\circ C$	0.75			V
r_T	Slope Resistance, for power loss calculation only	$T_j = 125^\circ C$	3.9			mΩ

Performance Curves

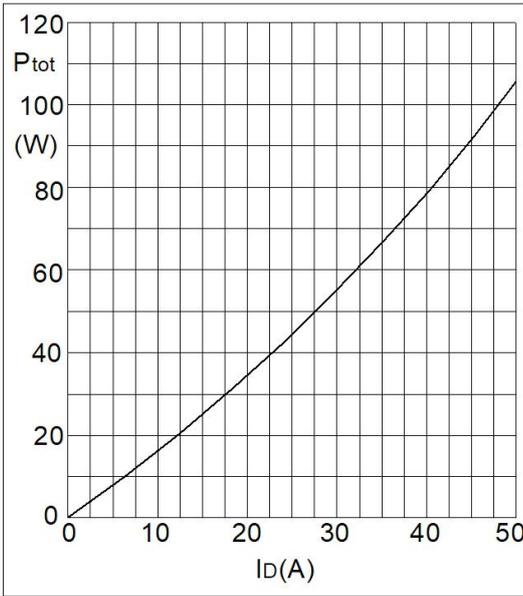


Fig1. Power Dissipation

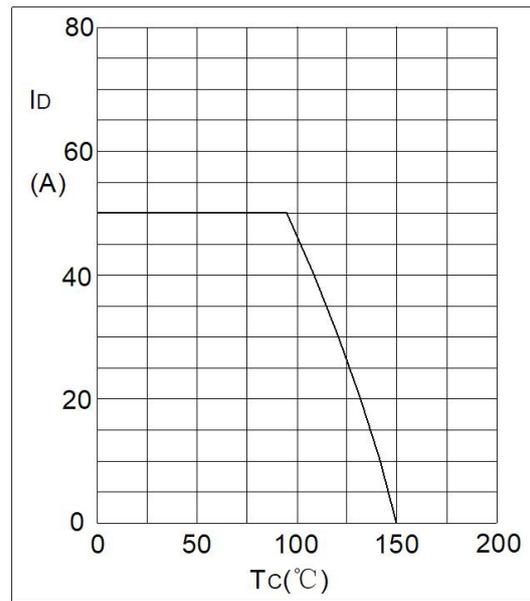


Fig2. Forward Current Derating Curve

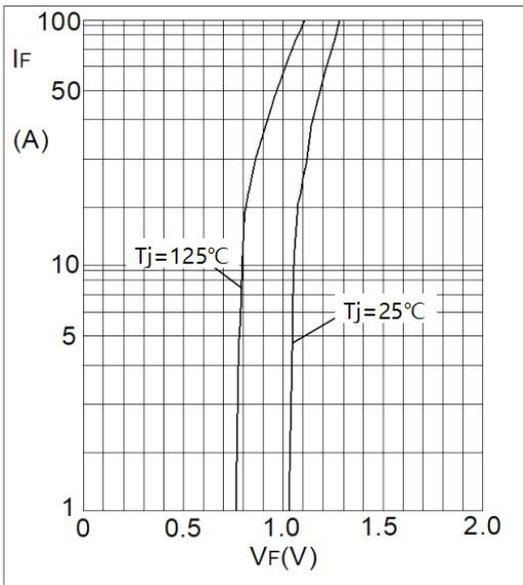


Fig3. Forward Characteristics

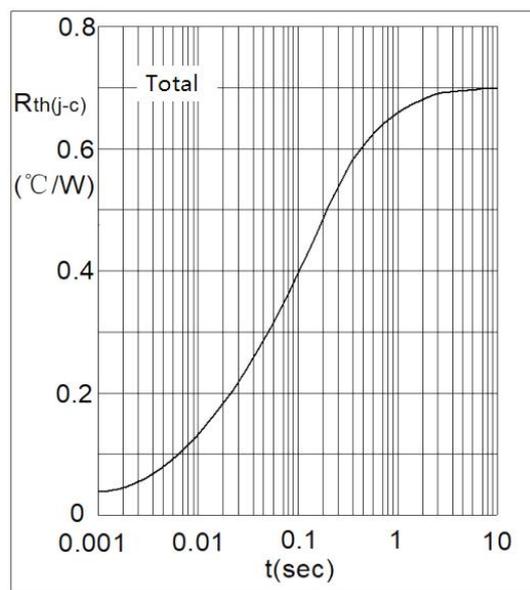


Fig4. Transient Thermal impedance

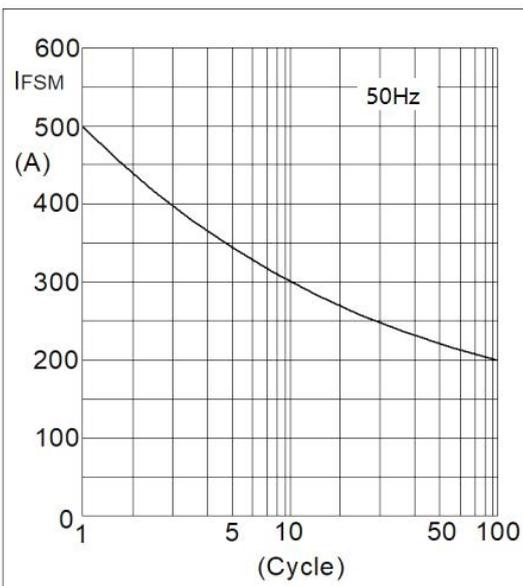
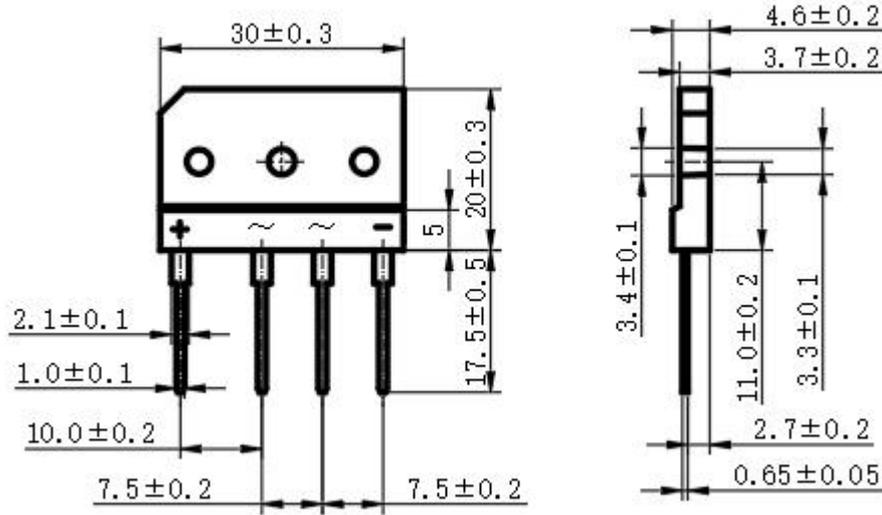


Fig5. Max Non-Repetitive Forward Surge Current

Package Outline Information

CASE: GBJ



Dimensions in mm

*IMPORTANT INFORMATION AND WARNINGS

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