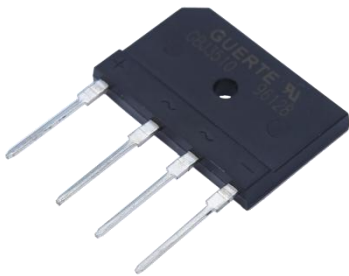


Single Phase Rectifier Bridge

V_{RRM} 200 to 1200V
I_D 50 Amp

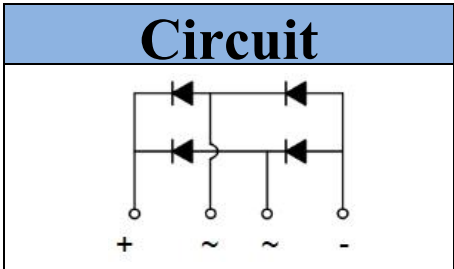


Features

- Glass passivated chip
- Ideal for printed circuit boards
- High surge current capability
- High temperature soldering guaranteed:265℃/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℃	50	A
I _{FSM}	Surge Forward Current	T _j = 25℃, t = 50Hz(10ms), V _R = 0V	500	A
I ² t	Circuit Fusing Consideration	t = 10ms T _j =25℃	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	℃
T _{stg}	Storage Temperature		-40 to +150	℃
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	℃/W
		Junction to Case(Per Diode)	2.8	℃/W

Electrical Characteristics

Symbol	Item	Conditions	Values			Unit
			Min.	Typ.	Max.	
V _{FM}	Forward Voltage Drop, Max	T _j = 25℃ I _F = 25A	—	—	1.1	V
I _{RRM}	Repetitive Peak Reverse Current, Max	T _j = 25℃ V _R = V _{RRM}	—	—	5	uA
		T _j = 150℃ V _R = V _{RRM}	—	—	0.5	mA
V _{T0}	Threshold Voltage, for power loss calculation only	T _j = 125℃	0.75			V
r _T	Slope Resistance, for power loss calculation only	T _j = 125℃	3.9			mΩ

Performance Curves

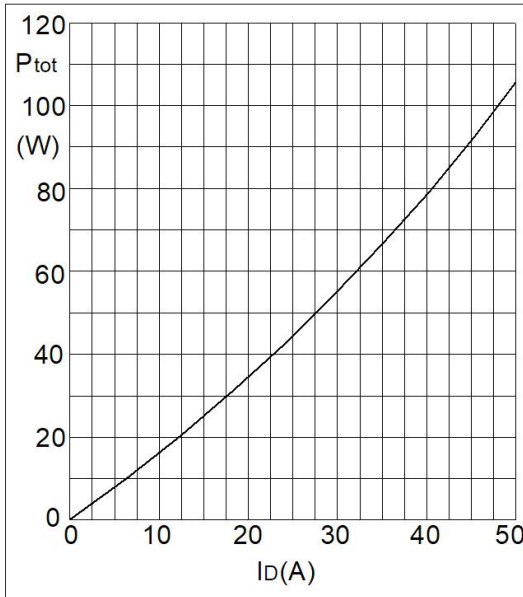


Fig1. Power Dissipation

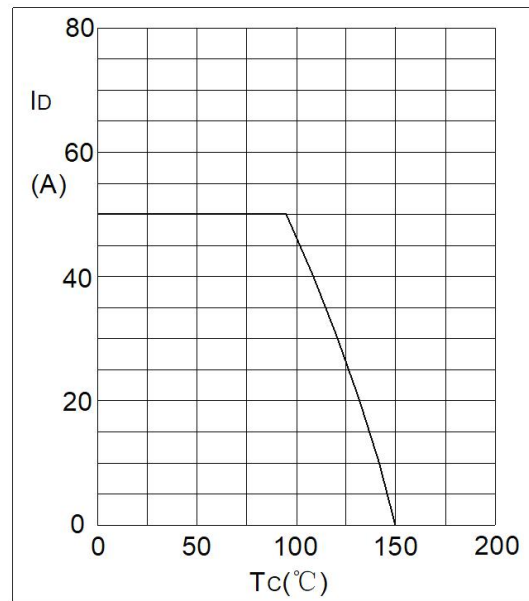


Fig2. Forward Current Derating Curve

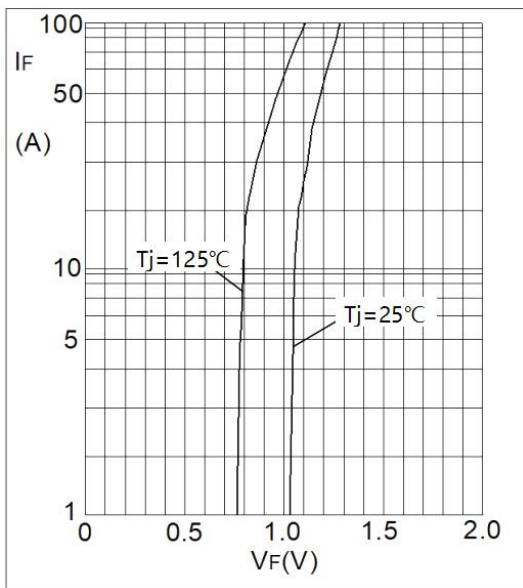


Fig3. Forward Characteristics

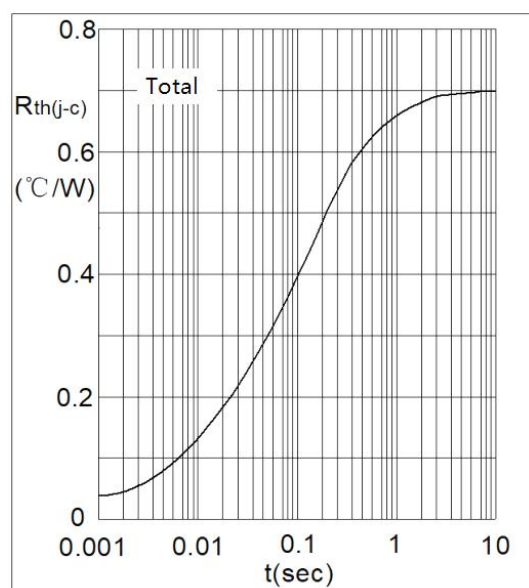


Fig4. Transient Thermal impedance

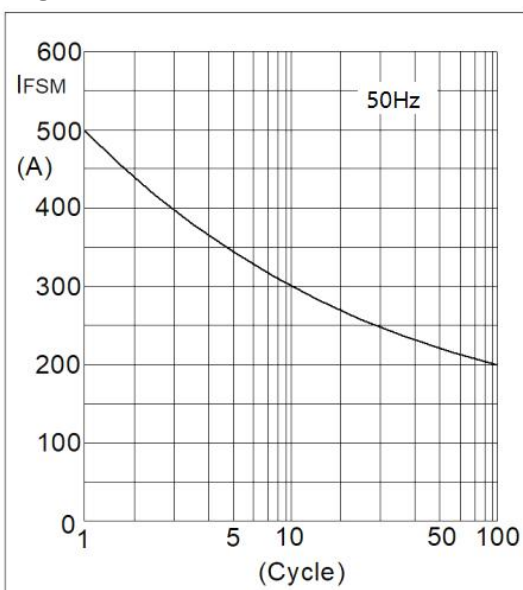
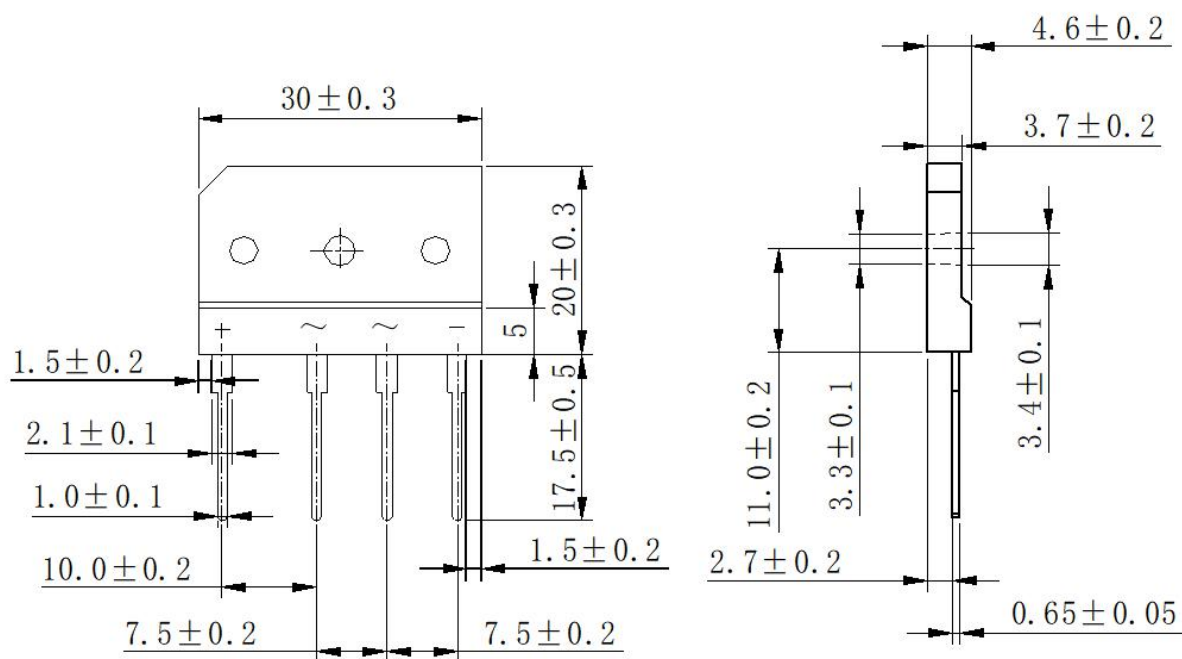


Fig5. Max Non-Repetitive Forward Surge Current

Package Outline Information

CASE: GBJ



Dimensions in mm

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