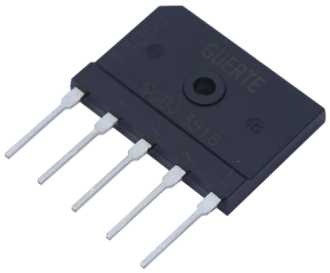
SGBJ1508-SGBJ1516

Three-Phase Silicon Bridges

SGBJ

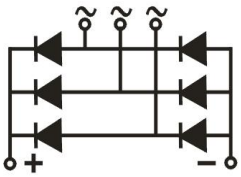
Features

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



Applications

- Inverter for AC or DC motor control
- Current stabilized power supply
- Input rectifiers for variable frequency drives
- Input rectifiers for PWM inverter



Module Type

Type	V_{RRM}	V_{RSM}
SGBJ1508	800V	900V
SGBJ1510	1000V	1100V
SGBJ1512	1200V	1300V
SGBJ1516	1600V	1700V

■ Maximum Ratings

Symbol	Item	Conditions	Values	Unit
I_D	Output Current	Three Phase, Full Wave T_c = 110℃	15	A
I_{FSM}	Surge Forward Current	T_j = 25℃, t = 50Hz(10ms), V_R = 0V	250	A
I^2t	Circuit Fusing Consideration	t = 10ms T_j =25℃	312	A^2s
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 +125	℃
M_s	Mounting Torque	(Recommended torque:0.65 N·m)	0.8	N·m
Weight	Module (Approximately)		10	g

■ Thermal Characteristics

Symbol	Item	Conditions	Values	Unit
$R_{th(j-c)}$	Thermal Impedance, Max	Junction to Case(Per Total)	1.2	℃/W
		Junction to Case(Per Diode)	7.2	℃/W

■ Electrical Characteristics

Symbol	Item	Conditions	Values			Unit
			Min.	Typ.	Max.	
V_{FM}	Forward Voltage Drop, Max	T_j = 25℃ I_F = 7.5A	—	—	1.18	V
I_{RRM}	Repetitive Peak Reverse Current, Max	T_j = 25℃ $V_R = V_{RRM}$	—	—	5	uA
		T_j = 150℃ $V_R = V_{RRM}$	—	—	3	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℃	23.5			mΩ

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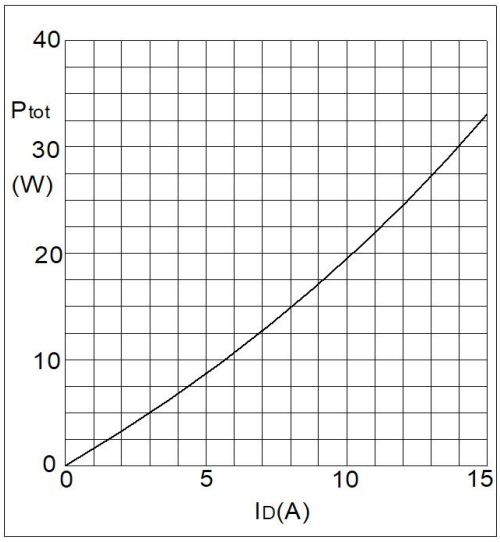
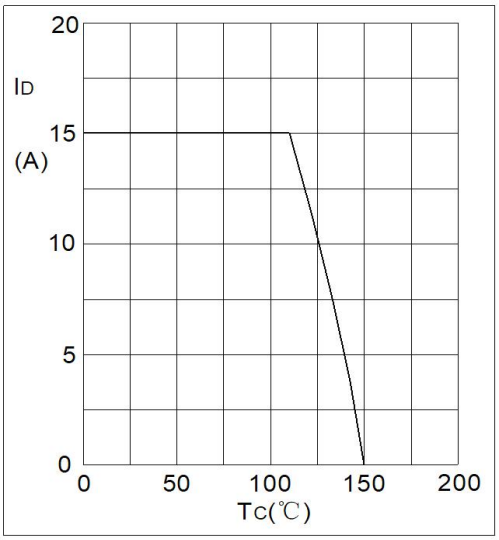
Performance Curves





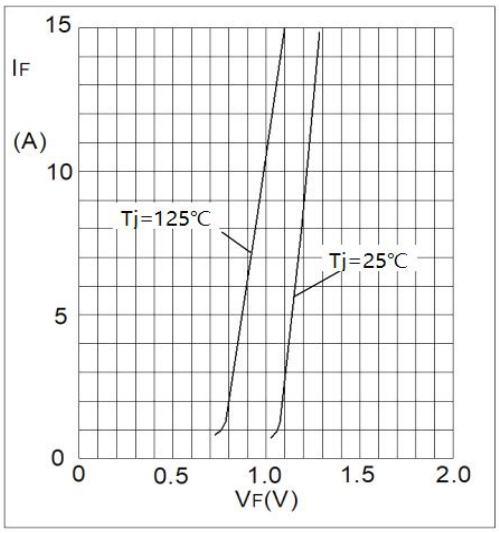


Fig3. Forward Characteristics

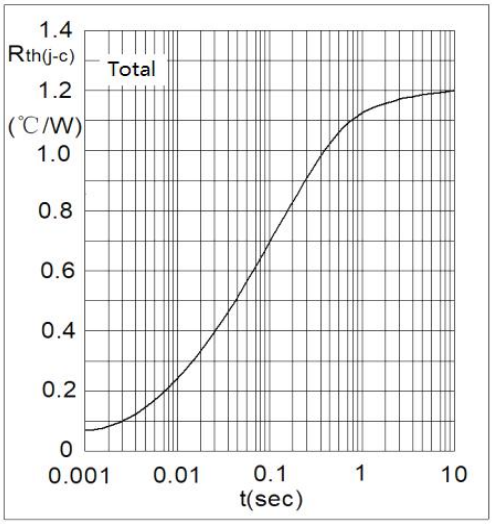
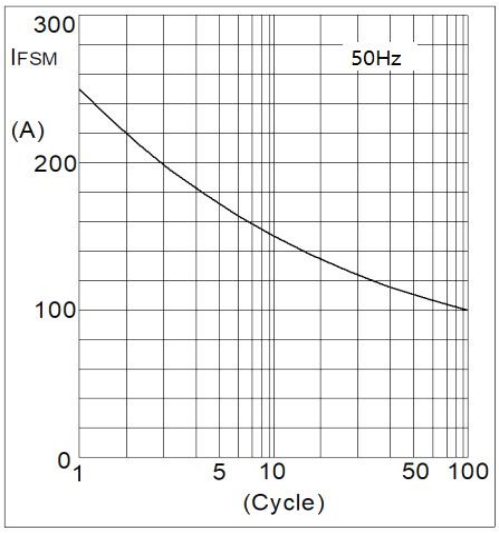


Fig4. Transient Thermal Impedance



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Package Outline Information

CASE: SGBJ **Dimensions in mm**