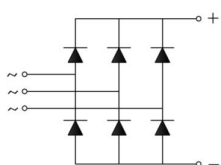
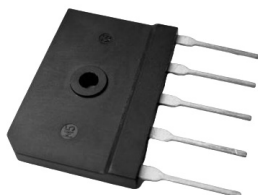


Glass Passivated Three-phase Bridge Rectifiers

SGBJ3512



Features

- Glass passivated die construction
- Ideal for printed circuit boards
- High surge current capability
- High temperature soldering guaranteed: 265 °C /10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension

Mechanical Data

- Case: Molded plastic case
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Marked on Body
- Mounting Position: Any

Maximum Ratings and Electrical characteristics

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20 %.

Parameter		Symbol	SGBJ3512	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	1200	V
Maximum RMS voltage		V_{RMS}	840	V
Maximum DC Blocking Voltage		V_{DC}	1200	V
Average Rectified Output Current		I_O	35.0	A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method) 50Hz		I_{FSM}	400	A
I^2t rating for fusing ($t=1ms\sim10ms$)		I^2t	800	A ² S
Dielectric Strength: A.C.50/60Hz;R.M.S.; 1 min		V_{dis}	2.5	KV
Mounting torque		M_s	Recommended torque:0.65N.m	N.m
Maximum Forward Voltage at 17.5A		V_F	1.18	V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$T_A=150\text{ }^{\circ}\text{C}$	I_R	3	mA
Junction to ambient , without heatsink Junction to case, with heatsink ¹	per diode	$R_{th(j-c)}$	7.8	$^{\circ}\text{C/W}$
	total		1.3	
Operating and Storage Temperature Range		T_j, T_{stg}	-55 ~ +150	$^{\circ}\text{C}$

Notes: (1) Junction to case

RATINGS AND CHARACTERISTICS CURVES (TA = 25 °C unless otherwise noted)

Fig.1 Current Derating, Case

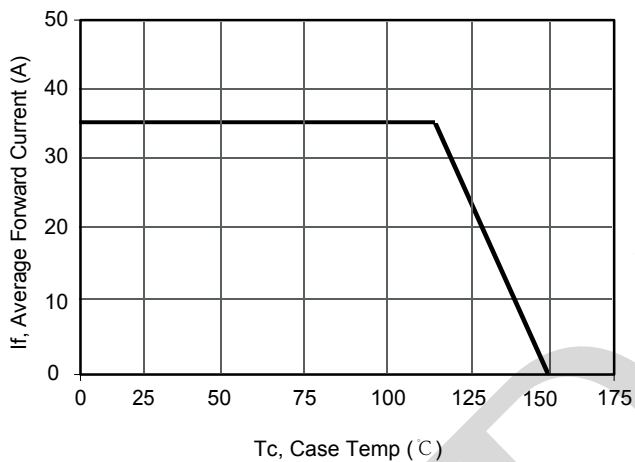


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

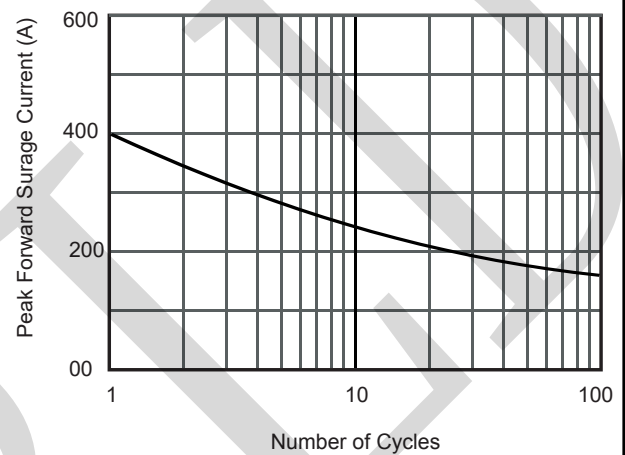
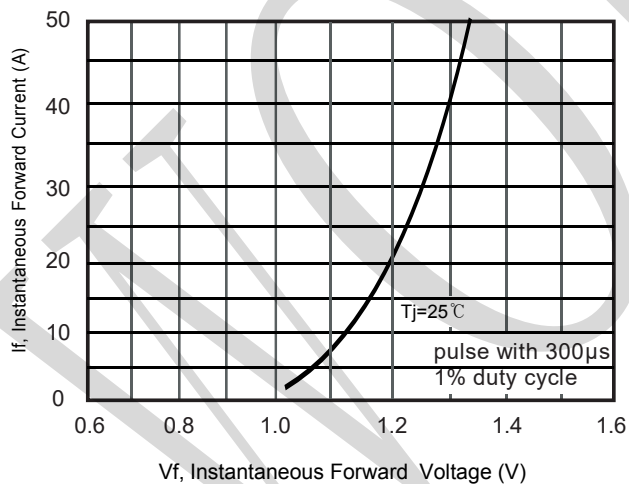
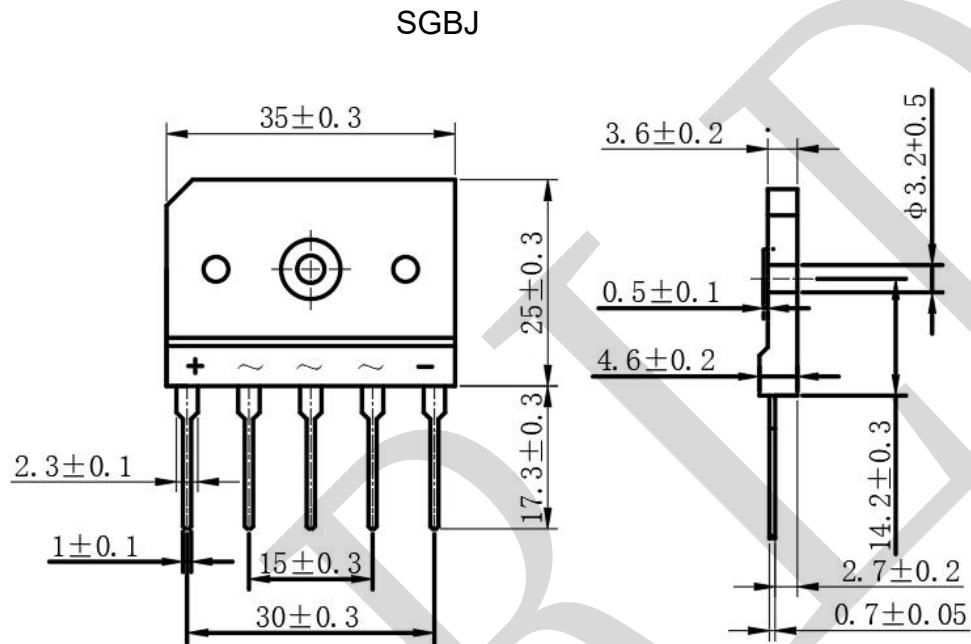


Fig.3 Typical Forward Voltage

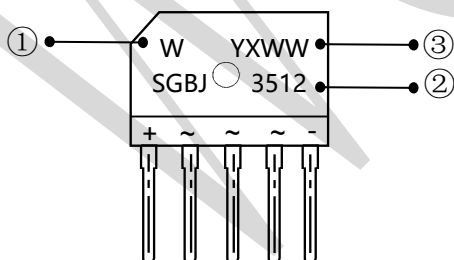


PACKAGE OUTLINE DIMENSIONS

Dimensions in inches (mm)



Marking Information



①W : Company's trademark

②Product model : SGBJ3512

③PDC information :

Y X WW

WW:Week code(01 to 53)

X:Internal identification code

Y:Year code(ex:0=2020)