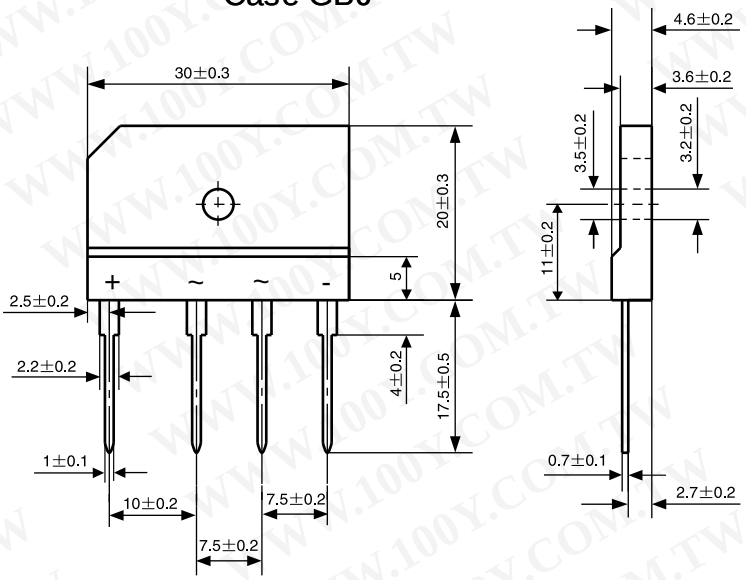
Case GBJ



Dimensions in millimeters

Glass Passivated Single Phase Bridge Rectifiers

Reverse Voltage 200 to 1000V
Forward current 25 Amp

Features

- Glass passivated die construction
- Ideal for printed circuit boards
- Plastic material used carries UL flammability recognition 94V-0
- High surge current capability
- High case dielectric strength of 1500 V_{RMS}
- High temperature soldering guaranteed: 265°C /10 seconds, 0.375" (9.5mm) lead length, 5lbs. (2.3kg) tension

SMSC Catalog Number	Maximum Repetitive Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GBJ25D	200V	140V	200V
GBJ25G	400V	280V	400V
GBJ25J	600V	420V	600V
GBJ25K	800V	560V	800V
GBJ25M	1000V	700V	1000V

Mechanical Data

Case: Molded plastic case
Terminals: Plated leads solderable per MIL-STD-750, Method 2026
Polarity : Marked on Body
Mounting Position: Any
Weight: 0.26 oz., 7.0 g

Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted)

Maximum average forward output rectified current Tc = 100°C	$I_{F(AV)}$	25	A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	350	A
Rating for fusing (t<8.3ms)	I^2t	500	A^2sec
Maximum thermal resistance per leg	R_{JA} R_{JC}	22(1) 1.0(2)	°C/W
Operating Junction and storage temperature range	Tj, T_{STG}	-55 to +150	°C
Mounting Torque (Recommended torque:0.5 N.m)	TOR	0.8	N.m

Electrical Characteristics (TA = 25°C unless otherwise noted)

Maximum Instantaneous Forward Voltage per leg	V_F	1.0V	I_{FM} =12.5A
Maximum DC reverse current at rated DC blocking voltage per leg	I_R	5.0 A 500 A	T_A = 25°C T_A = 125°C

Notes: (1) Junction to ambient without heatsink
(2) Junction to case with heatsink
(3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

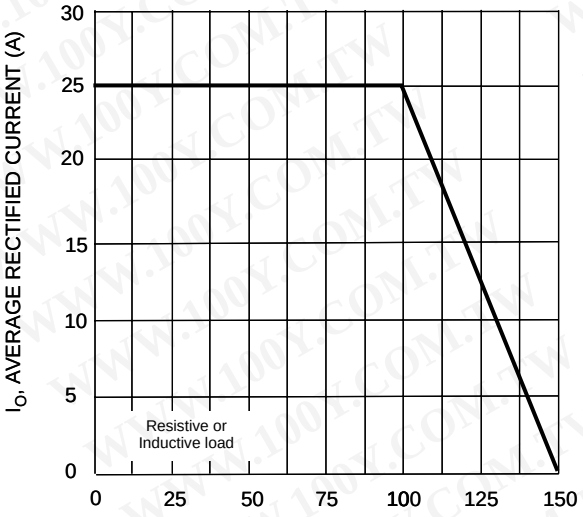


Fig. 1 Forward Current Derating Curve

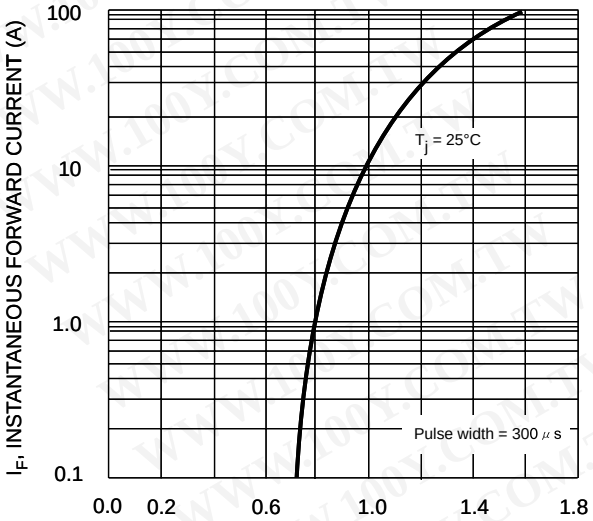


Fig. 2 Typical Fwd Characteristics, per element

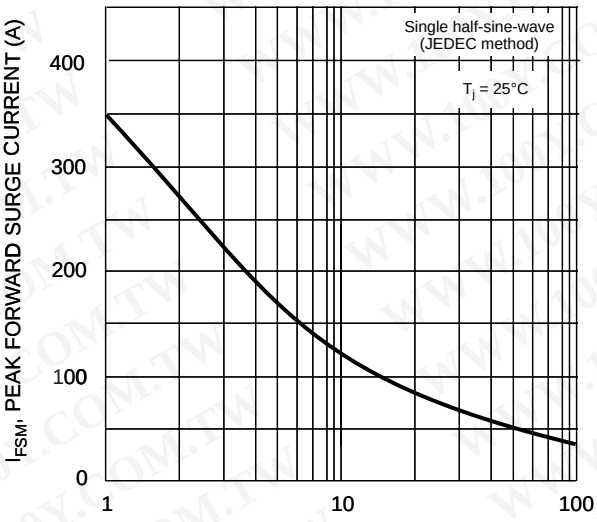


Fig. 3 Maximum Non-Repetitive Surge Current

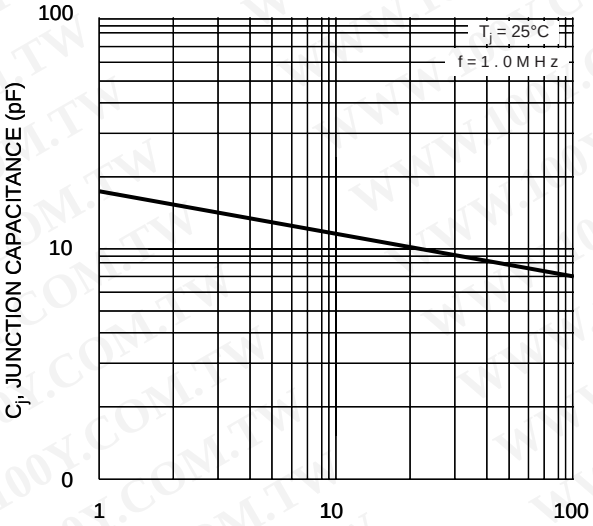


Fig. 4 Typical Junction Capacitance

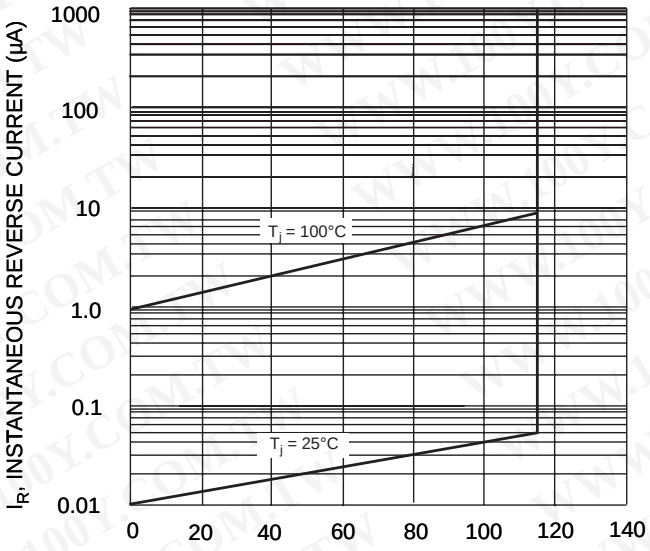


Fig. 5 Typical Reverse Characteristics