

## Glass Passivated Single Phase Bridge Rectifiers

**Reverse Voltage** 200 to 1000V  
**Forward Current** 20.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 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

### Module Type

TYPE	VRRM	VRSM
SGBJ20D	200V	300V
SGBJ20G	400V	500V
SGBJ20J	600V	700V
SGBJ20K	800V	900V
SGBJ20M	1000V	1100V

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

Symbol	Conditions	Values	Units
IF(AV)	Maximum average forward output rectified current Tc =100°C	20	A
IFSM	Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	220	A
i <sup>2</sup> t	Rating for fusing (t<8.3ms)	200	A <sup>2</sup> s
Visol	a.c.50HZ;r.m.s.;1min	2500	V
RθJA RθJC	Maximum thermal resistance per leg	22 <sup>(1)</sup> 1.5 <sup>(2)</sup>	°C/W
TOR	Mounting Torque (Recommended torque:0.5 N.m)	0.8	N.m
Tj, TSTG	Operating Junction and storage temperature range	-55 to +150	°C
Weight	Approximate Weight	7.0	g

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

Symbol	Conditions	Values	Units
VF	Maximum Instantaneous Forward Voltage per leg IFM =10.0A	1.0	V
IR	Maximum DC reverse current at rated DC blocking voltage per leg TA = 25°C TA = 125°C	5.0 500	µA

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

## Performance Curves

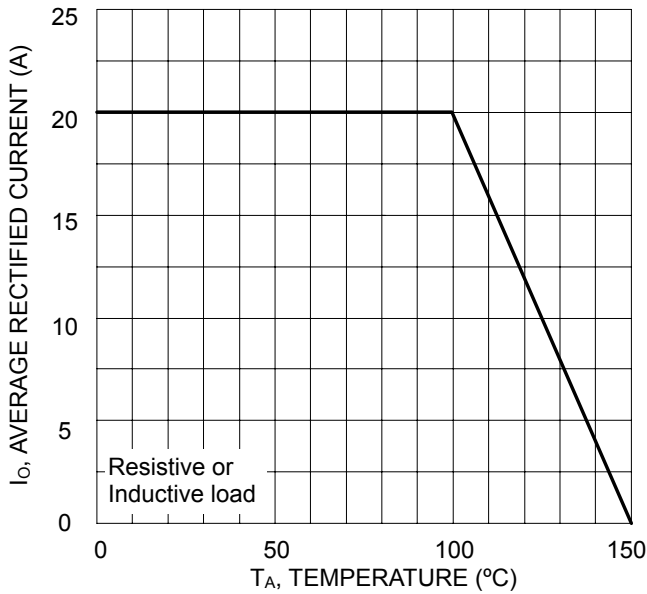


Fig.1 Forward Current Derating Curve

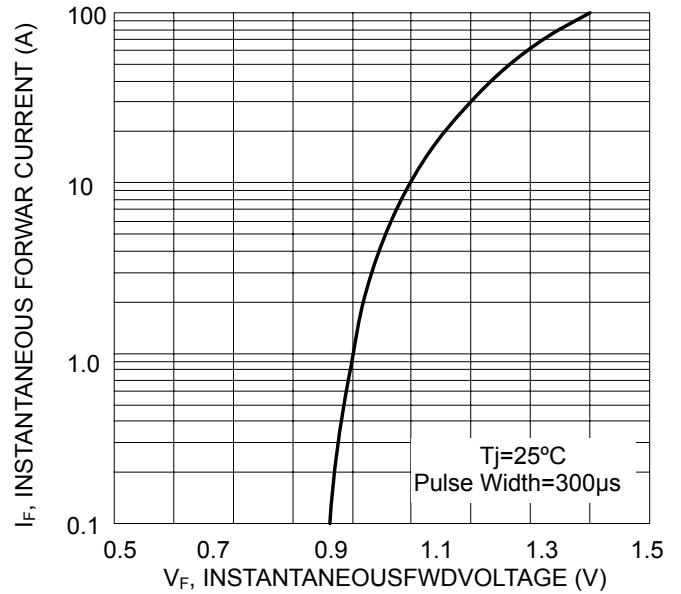


Fig.2 Typical Forward Characteristics

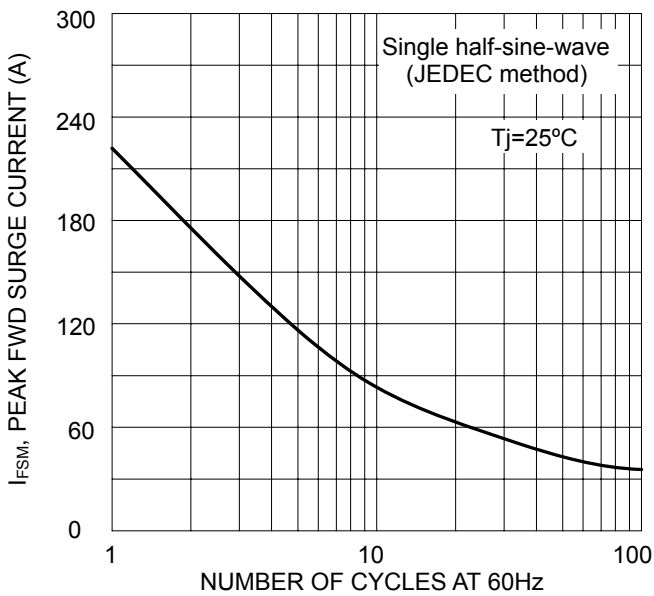


Fig.3 Maximum Non-Repetitive Surge Current

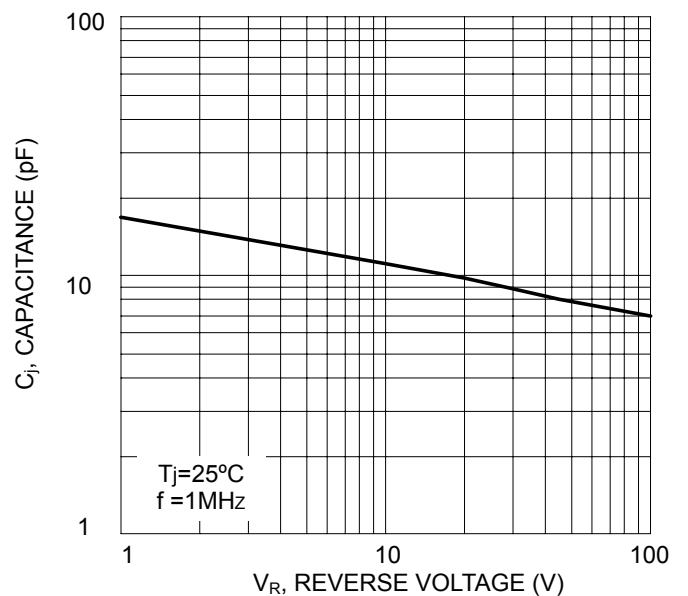


Fig.4 Typical Junction Capacitance

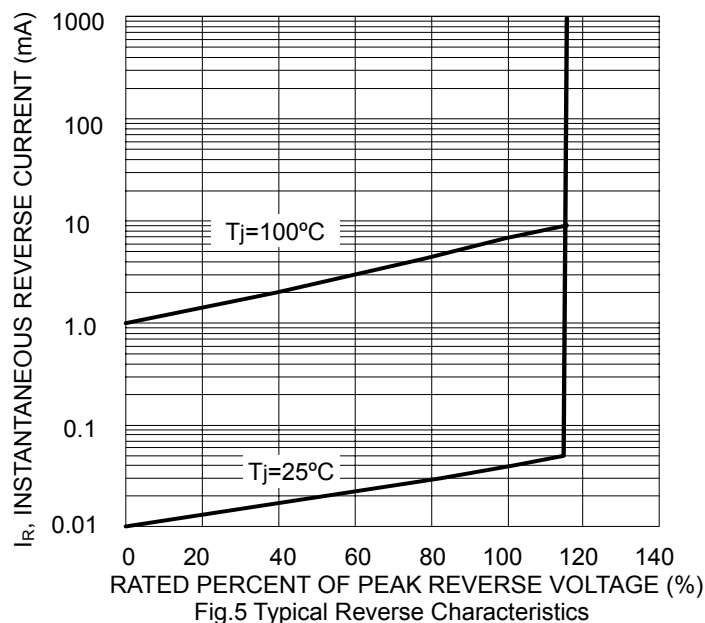
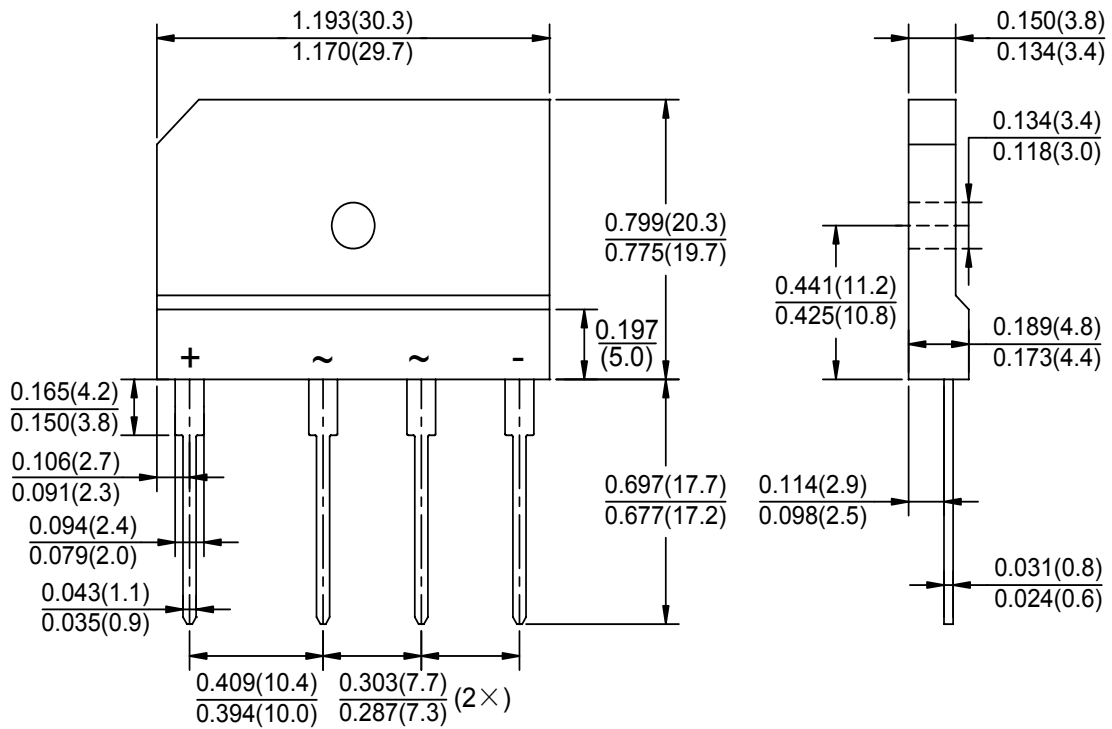


Fig.5 Typical Reverse Characteristics

## Package Outline Information

CASE: GBJ



Dimensions in inches (mm)