

## Case GBL

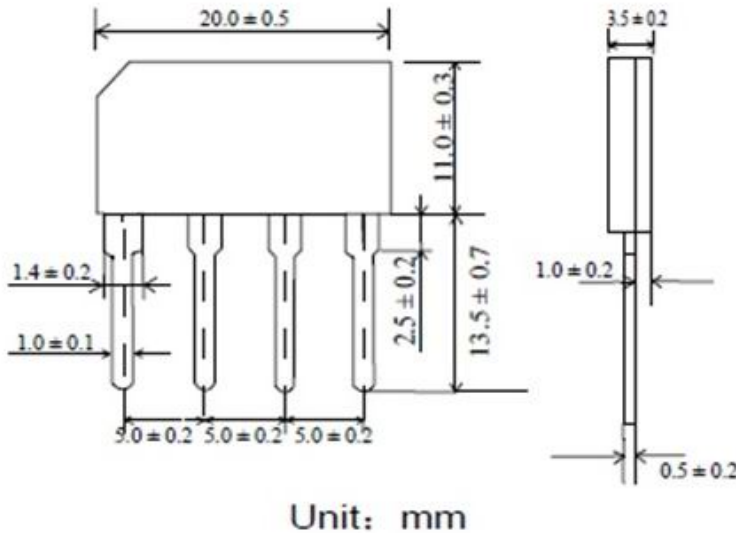
## Glass Passivated Single Phase Bridge Rectifiers

### GBL

**Reverse Voltage** 200 to 1000V  
**Forward current** 4.0 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<sub>RMS</sub>
- 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
GBL02	200V	140V	200V
GBL04	400V	280V	400V
GBL06	600V	420V	600V
GBL08	800V	560V	800V
GBL10	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:** 0.077 oz., 2.2 g

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

Maximum average forward output rectified current Tc = 50°C	I <sub>F(AV)</sub>	4.0	A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	I <sub>FSM</sub>	150	A
Rating for fusing (t<8.3ms)	I <sup>2</sup> t	93	A <sup>2</sup> sec
Maximum thermal resistance per leg <sup>(1)</sup>	R <sub>θJA</sub> R <sub>θJC</sub>	47 10	°C/W
Operating Junction and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-55 to +150	°C

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

Maximum Instantaneous Forward Voltage per leg	V <sub>F</sub>	1.1V	I <sub>FM</sub> = 4.0A
Maximum DC reverse current at rated DC blocking voltage per leg	I <sub>R</sub>	5.0μA 500μA	T <sub>A</sub> = 25°C T <sub>A</sub> = 125°C

Notes: (1) Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.47 x 0.47" (12 x 12mm) copper pads.

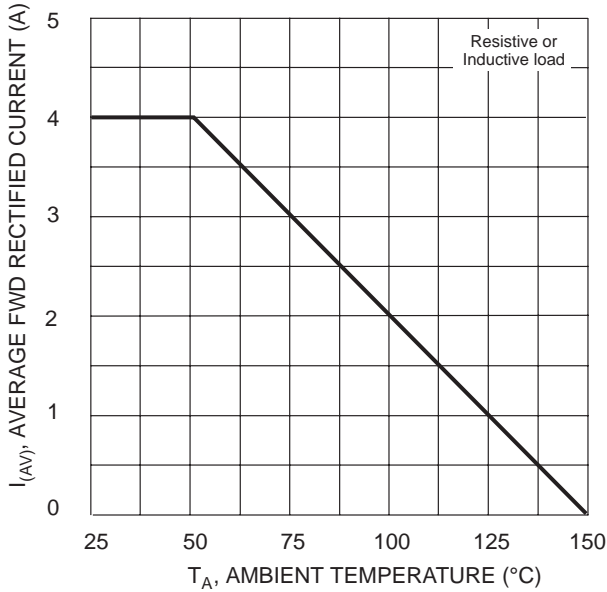


Fig. 1 Forward Current Derating Curve

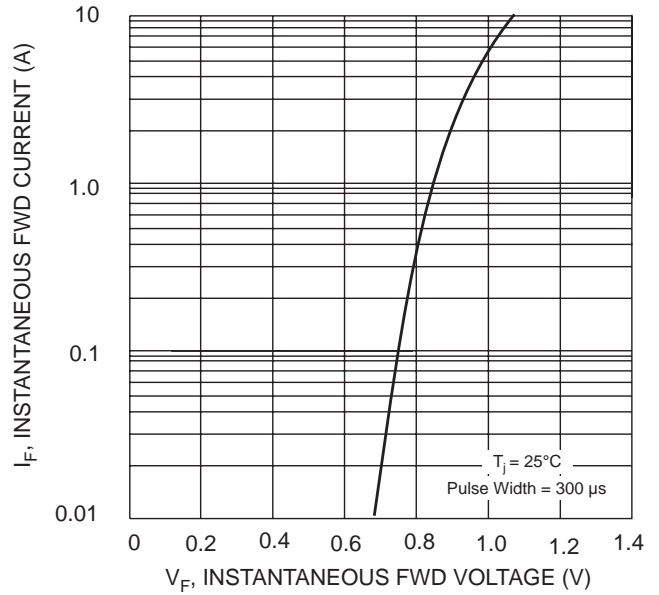


Fig. 2 Typical Forward Characteristics, per element

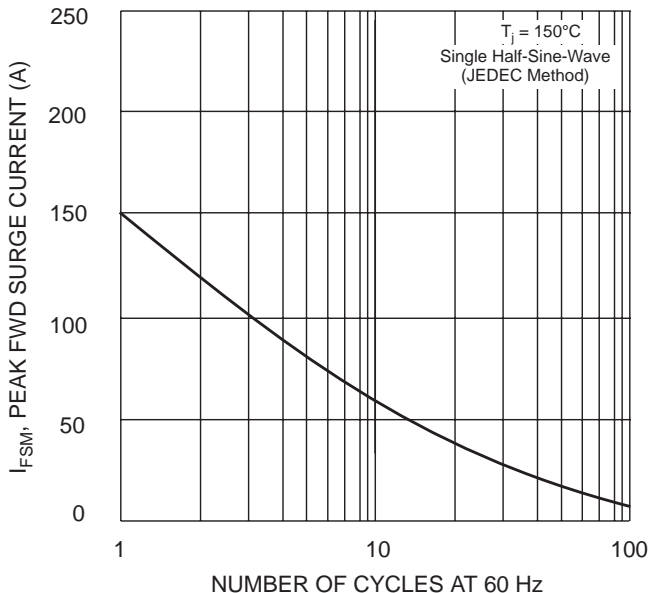


Fig. 3 Max Non-Repetitive Surge Current

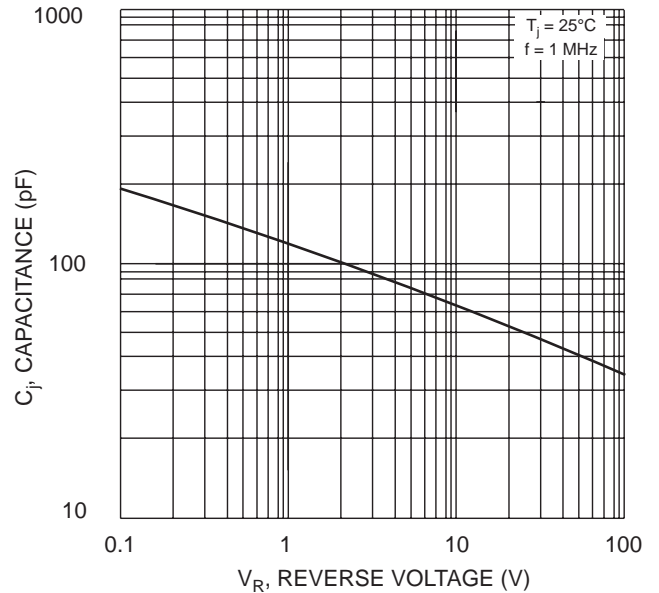


Fig. 4 Typical Junction Capacitance

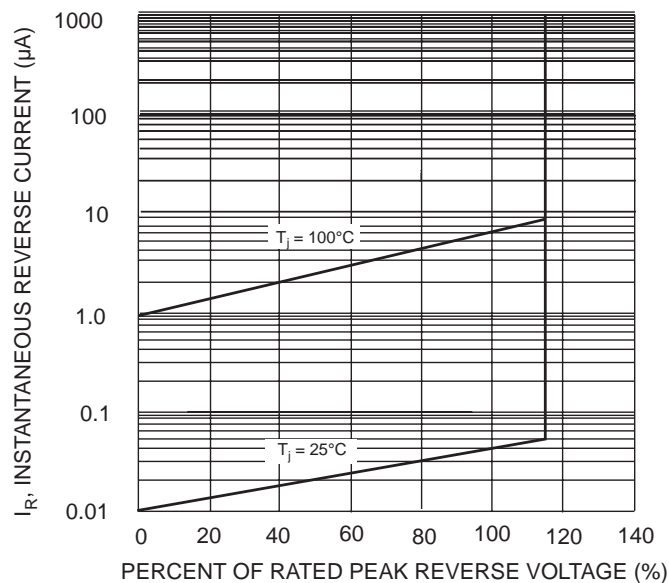


Fig. 5 Typical Reverse Characteristics