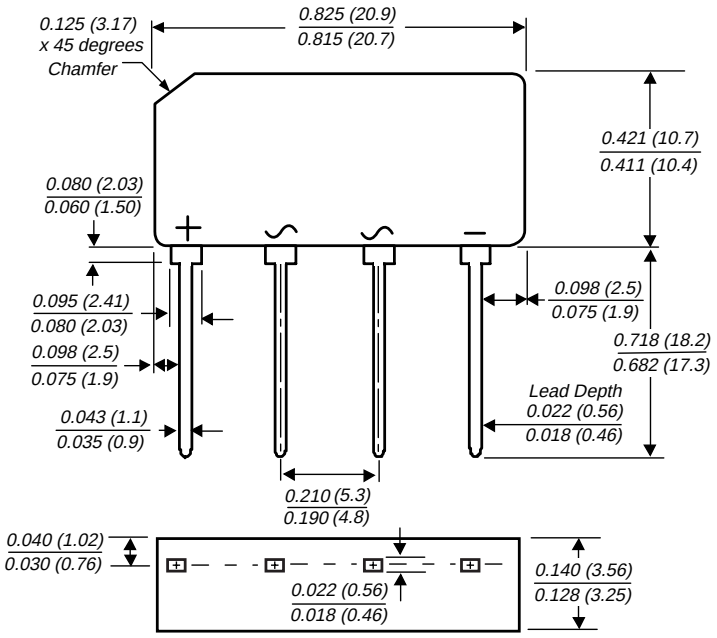
Case GBL



Dimensions in inches and (millimeters)

Glass Passivated Single Phase Bridge Rectifiers

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_{RMS}
- High temperature soldering guaranteed: 265^{O}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
SGBL02	200V	140V	200V
SGBL04	400V	280V	400V
SGBL06	600V	420V	600V
SGBL08	800V	560V	800V
SGBL10	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: 0.071 oz., 2.0 g

Maximum Ratings and Thermal Characteristics (TA = 25^{O}C unless otherwise noted)

Maximum average forward output rectified current Tc = 50^{O}C	$I_{F(AV)}$	4.0	A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120	A
Rating for fusing (t<8.3ms)	I^2t	60	A^2sec
Maximum thermal resistance per leg(1)	$R_{\theta JA}$ $R_{\theta JL}$	47 10	^{O}C/W
Operating Junction and storage temperature range	Tj, T_{STG}	-55 to +150	^{O}C

Electrical Characteristics (TA = 25^{O}C unless otherwise noted)

Maximum Instantaneous Forward Voltage per leg	V_F	1.1V	I_{FM} =4.0A
Maximum DC reverse current at rated DC blocking voltage per leg	I_R	5.0μA 500μA	T_A = 25^{O}C T_A = 125^{O}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.

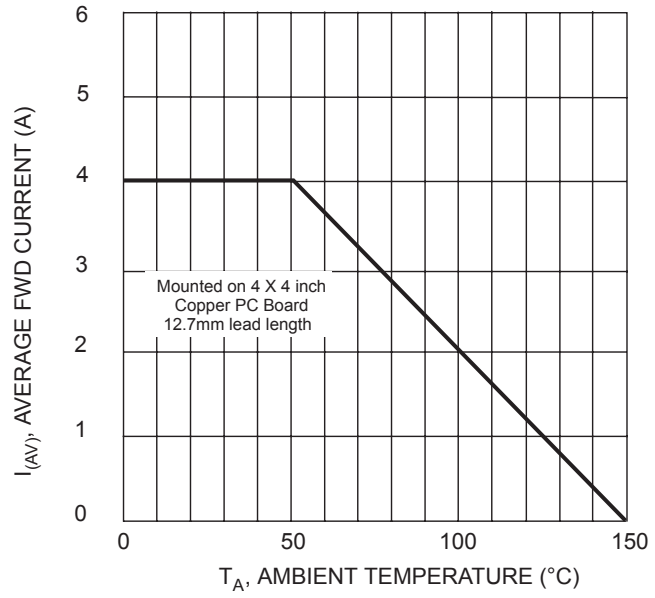


Fig. 1 Forward Current Derating Curve

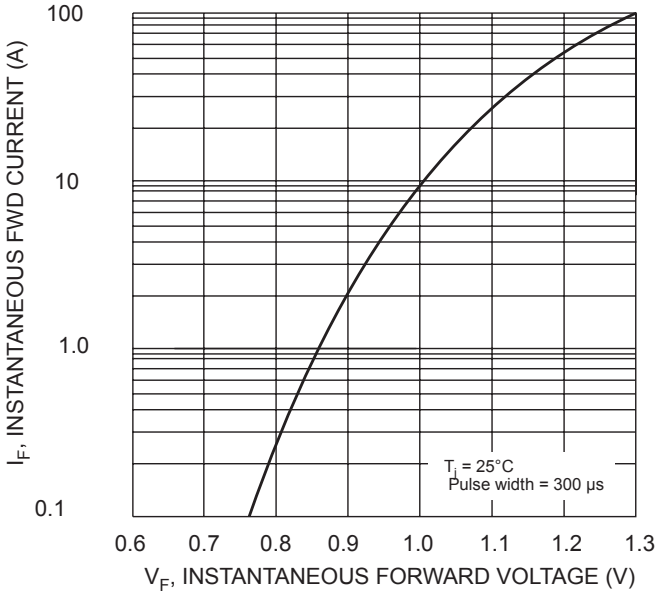


Fig. 2 Typical Forward Characteristics, per element

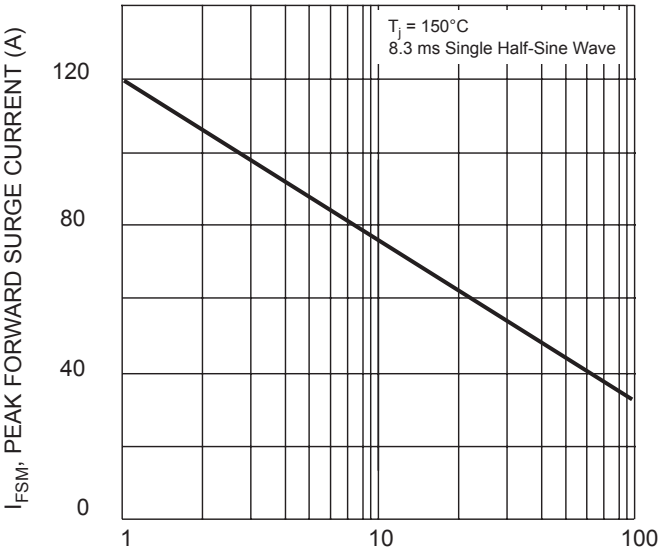


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

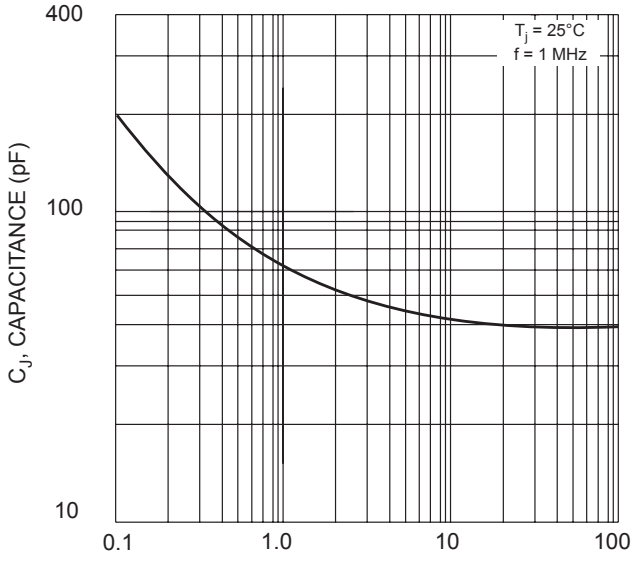


Fig. 4 Typical Junction Capacitance per element

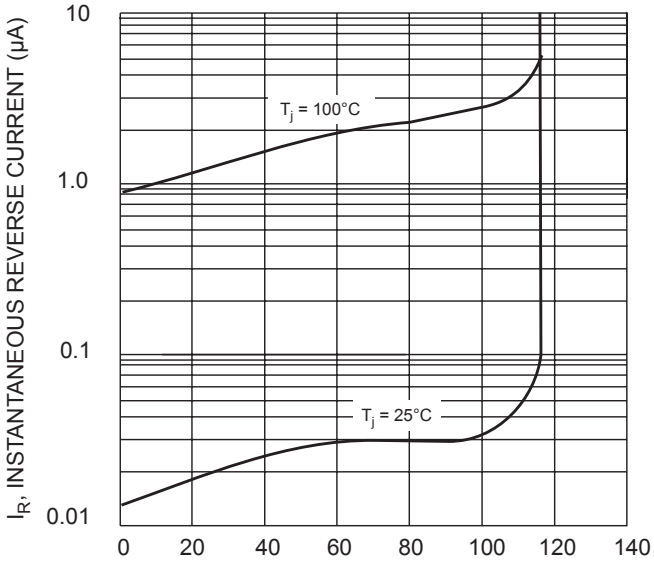


Fig. 5 Typical Reverse Characteristics