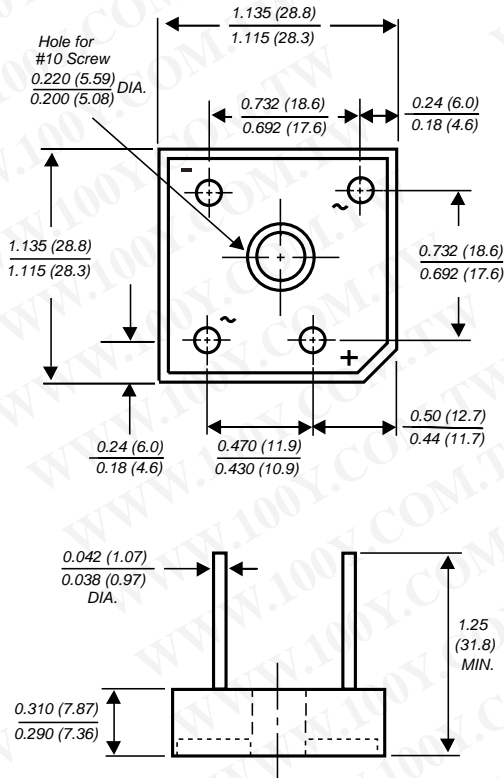


Case GBPC-W

Glass Passivated Single Phase Bridge Rectifiers

Reverse Voltage 200 to 1000V
Forward current 50 Amp



Dimensions in inches and (millimeters)

Features

- Glass passivated die construction
- Integrally molded heatsink provides very low thermal resistance for maximum heat dissipation
- The plastic material used carries UL flammability recognition 94V-0
- High surge current capability
- High temperature soldering guaranteed: 260°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
GBPC5002W	200V	140V	200V
GBPC5004W	400V	280V	400V
GBPC5006W	600V	420V	600V
GBPC5008W	800V	560V	800V
GBPC5010W	1000V	700V	1000V

Mechanical Data

Case: Epoxy case with heatsink internally

Terminals: Plated leads solderable per MIL-STD-750, Method 2026

Polarity: Marked on Body

Mounting Position: Any

Weight: 0.53 oz, 15 gms

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

Maximum average forward output rectified current Tc = 55°C	I _{F(AV)}	50	A
Peak forward surge current single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	400	A
Rating for fusing (t<8.3ms)	I ² t	800	A ² sec
Maximum thermal resistance per leg ⁽¹⁾	R _{θJC}	1.4	°C/W
Operating Junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

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

Maximum Instantaneous Forward Voltage per leg	V _F	1.1V	I _{FM} = 25A
Maximum DC reverse current at rated DC blocking voltage per leg	I _R	5.0μA 500μA	T _A = 25°C T _A = 125°C

Notes: (1) Unit case mounted on Al plate heatsink

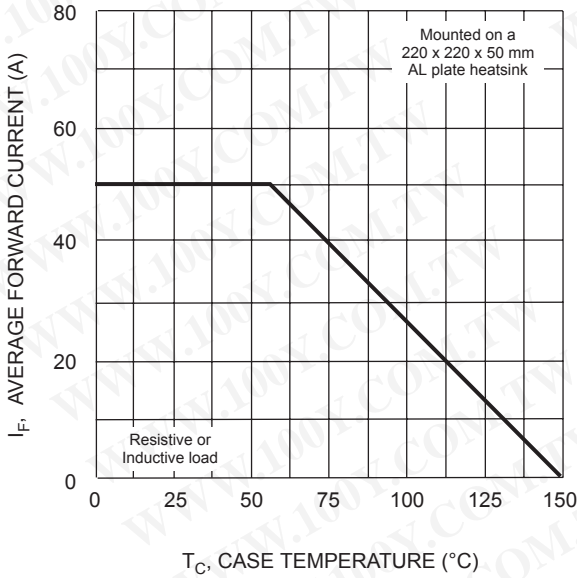


Fig. 1 Forward Current Derating Curve

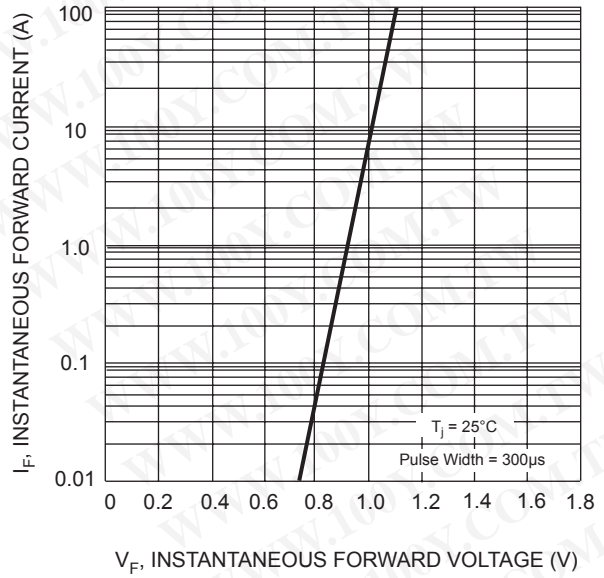


Fig. 2 Typical Forward Characteristics (per element)

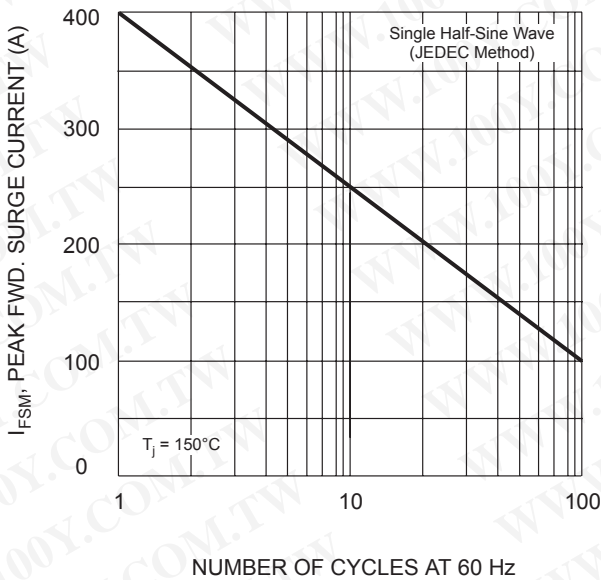


Fig. 3 Max Non-Repetitive Surge Current

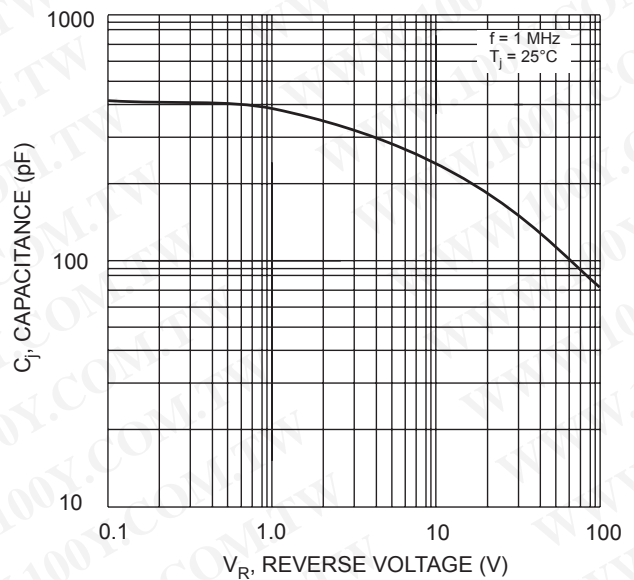


Fig. 4 Typical Junction Capacitance (per element)

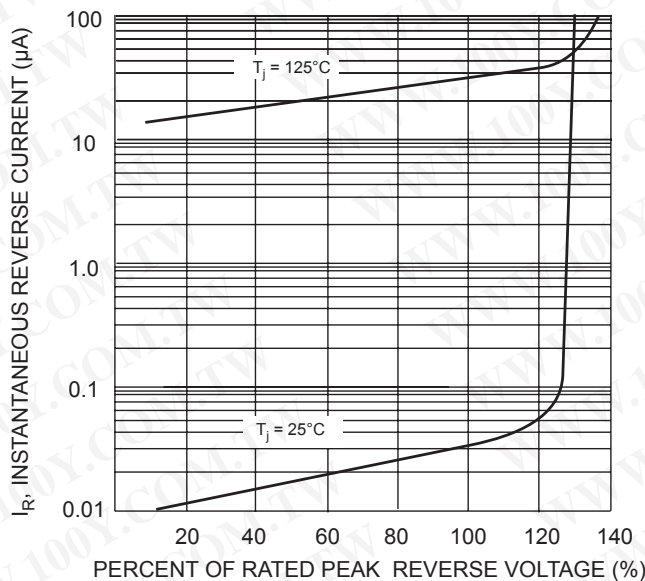


Fig. 5 Typical Reverse Characteristics (per element)