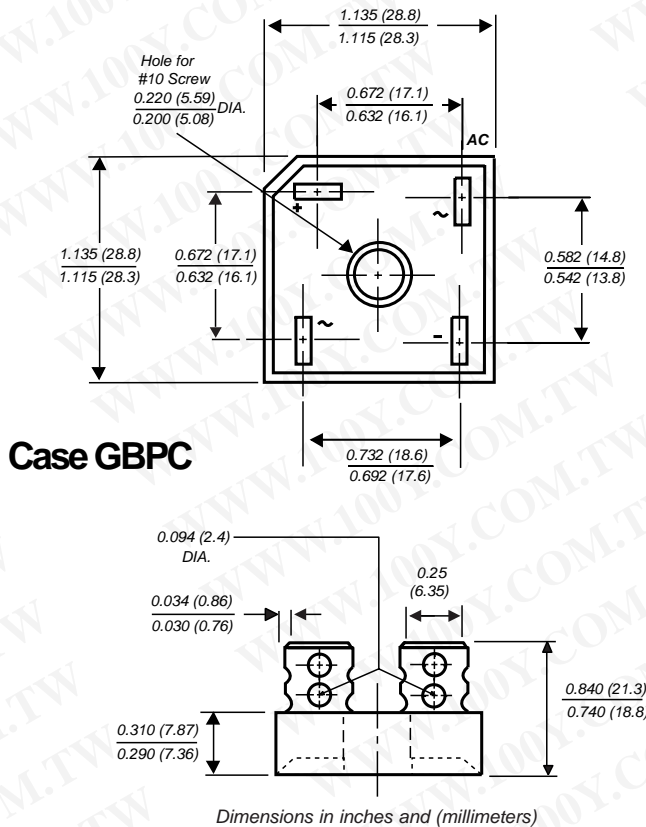


Glass Passivated Single Phase Bridge Rectifiers

Reverse Voltage 200 to 1000V
Forward current 50 Amp

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
GBPC5002	200V	140V	200V
GBPC5004	400V	280V	400V
GBPC5006	600V	420V	600V
GBPC5008	800V	560V	800V
GBPC5010	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

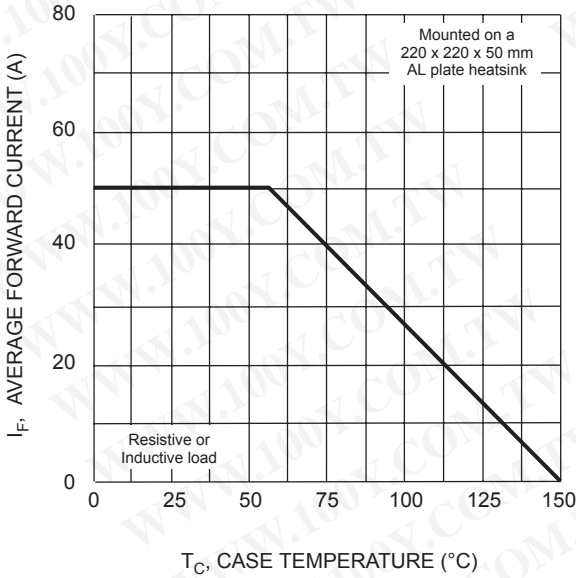
Maximum Ratings and Thermal Characteristics (TA = 25°C unless otherwise noted)

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

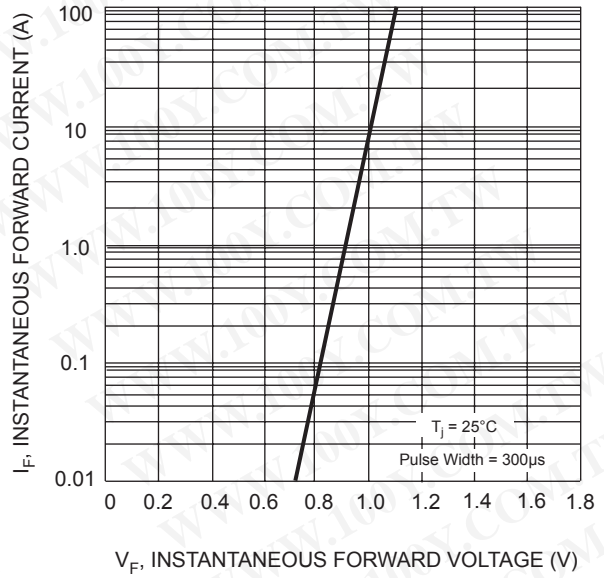
Electrical Characteristics (TA = 25°C unless otherwise noted)

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

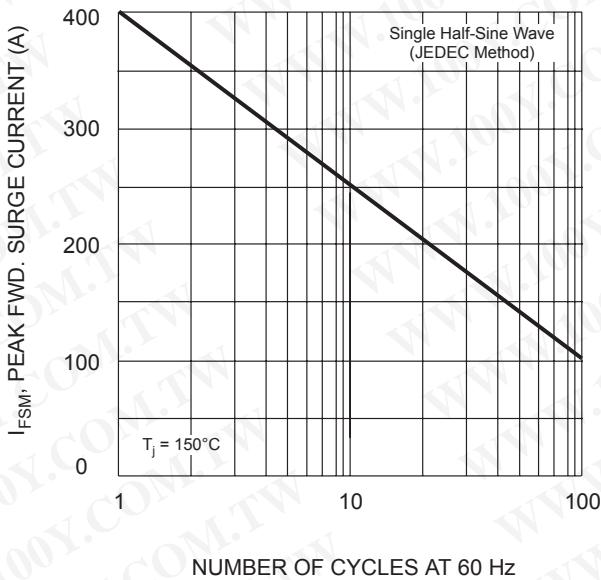
Notes: (1) Unit case mounted on Al plate heatsink



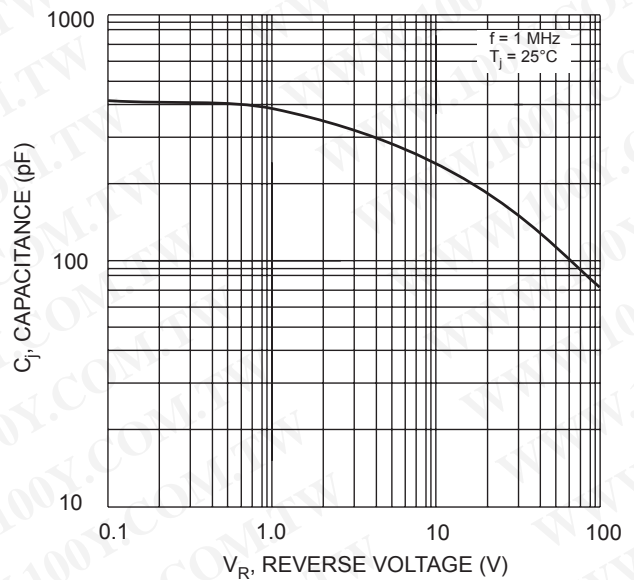
T_C , CASE TEMPERATURE (°C)
 Fig. 1 Forward Current Derating Curve



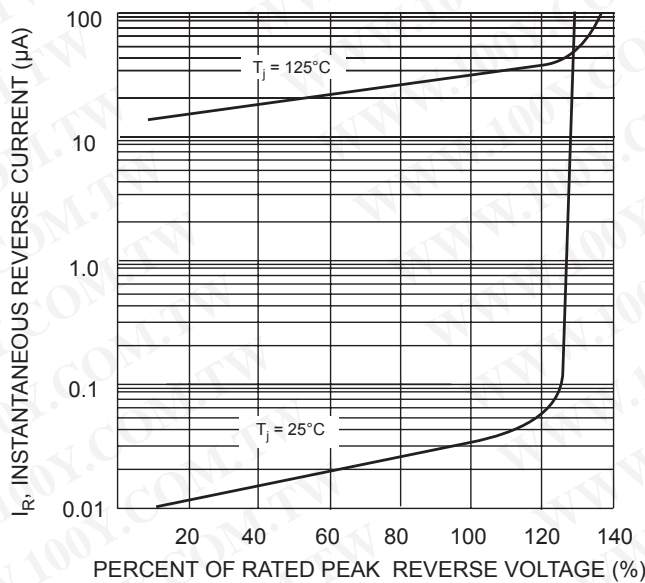
V_F , INSTANTANEOUS FORWARD VOLTAGE (V)
 Fig. 2 Typical Forward Characteristics (per element)



NUMBER OF CYCLES AT 60 Hz
 Fig. 3 Max Non-Repetitive Surge Current



V_R , REVERSE VOLTAGE (V)
 Fig. 4 Typical Junction Capacitance (per element)



PERCENT OF RATED PEAK REVERSE VOLTAGE (%)
 Fig. 5 Typical Reverse Characteristics (per element)