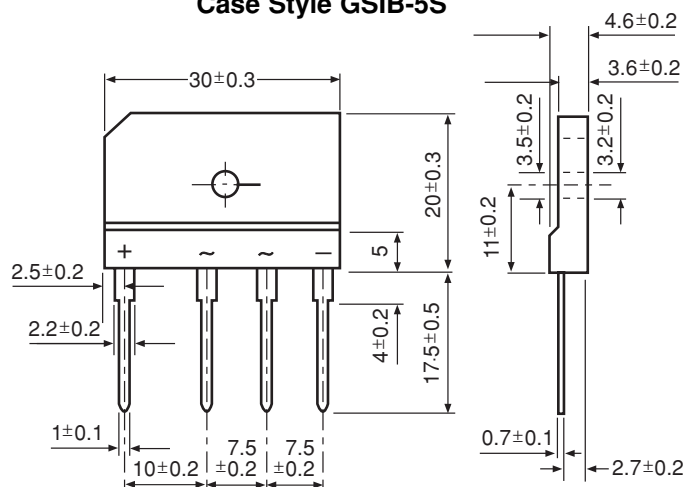


Single-Phase Single In-Line Bridge Rectifiers

Reverse Voltage 200 to 800V
Forward Current 15A

Case Style GSIB-5S



Dimensions in millimeters

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under Recognized Component Index, file number E54214.
- High case dielectric strength of 2500 VRMS
- Ideal for printed circuit boards
- Glass passivated chip junction
- High surge current capability
- High temperature soldering guaranteed: 260°C/10 seconds, 0.375 (9.5mm) lead length, 5lbs. (2.3kg) tension

Mechanical Data

Case: GSIB-5S Molded plastic body

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

Mounting Position: Any⁽³⁾

Mounting Torque: 8 in-lbs max.

Weight: 0.26 oz., 7.0 g

Maximum Ratings & Thermal Characteristics (T_A = 25°C unless otherwise noted)

Parameter	Symbol	GSIB1520	GSIB1540	GSIB1560	GSIB1580	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	400	600	800	V
Maximum RMS voltage	V_{RMS}	140	280	420	560	V
Maximum DC blocking voltage	V_{DC}	200	400	600	800	V
Maximum average forward rectified output current at $T_C = 107^{\circ}C$ $T_A = 25^{\circ}C$	$I_{F(AV)}$	15 ⁽¹⁾ 3.5 ⁽²⁾				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	300				A
Rating for fusing ($t < 8.3ms$)	I^2t	240				A ² sec
Maximum thermal resistance per leg	$R_{\theta JA}$ $R_{\theta JC}$	22 ⁽²⁾ 1.5 ⁽¹⁾				°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150				°C

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

Parameter	Symbol	GSIB1520	GSIB1540	GSIB1560	GSIB1580	Unit
Maximum instantaneous forward voltage drop per leg at 7.5A	V_F	0.95				V
Maximum DC reverse current at rated DC blocking voltage per leg $T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$	I_R	10 250				μA

Notes:

- (1) Unit case mounted on Al plate heatsink.
- (2) Units mounted on P.C.B. without heatsink
- (3) Recommended mounting position is to bolt down on heatsink with silicone thermal compound for maximum heat transfer with #6 screw

Ratings and Characteristic Curves ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 - Derating Curve Output Rectified Current

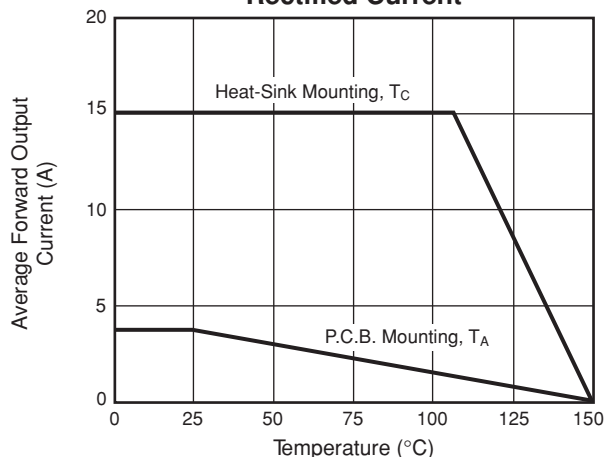


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current Per Leg

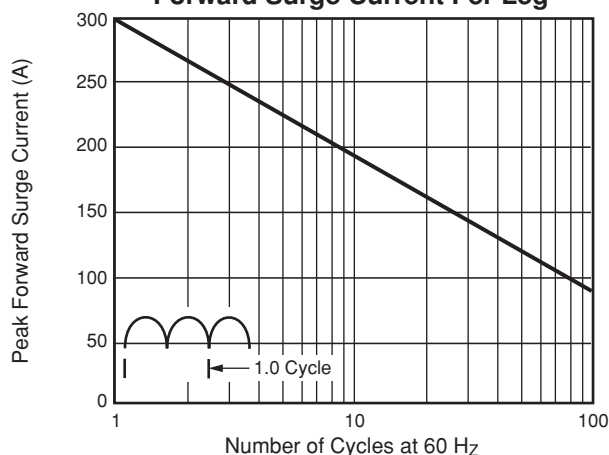


Fig. 3 - Typical Forward Characteristics Per Leg

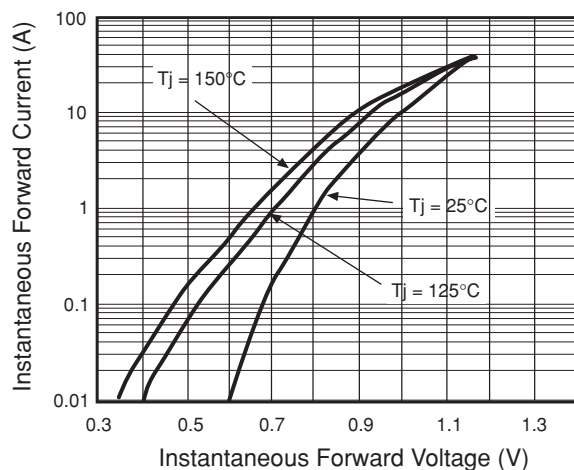


Fig. 4 - Typical Reverse Characteristics Per Leg

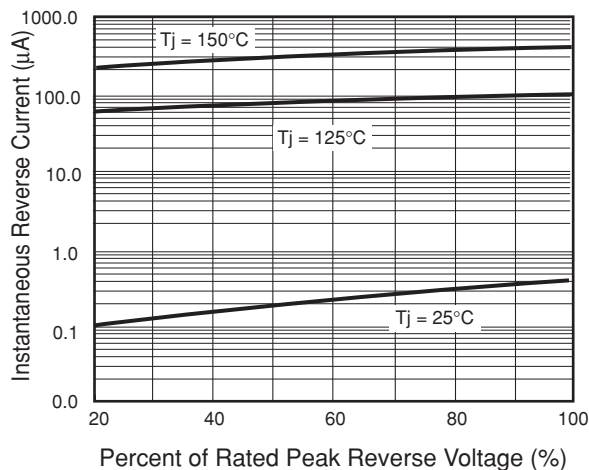


Fig. 5 - Typical Junction Capacitance Per Leg

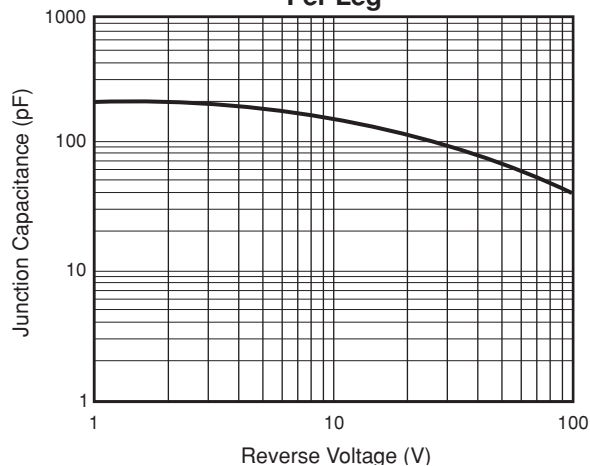


Fig. 6 - Typical Transient Thermal Impedance

