

New Product

Single-Phase Single In-Line Bridge Rectifiers

Reverse Voltage 200 to 800V
Forward Current 20A

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- This series is UL listed under the Recognized Component Index, file number E54214.
- High case dielectric strength of 2500 V_{RMS}
- 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

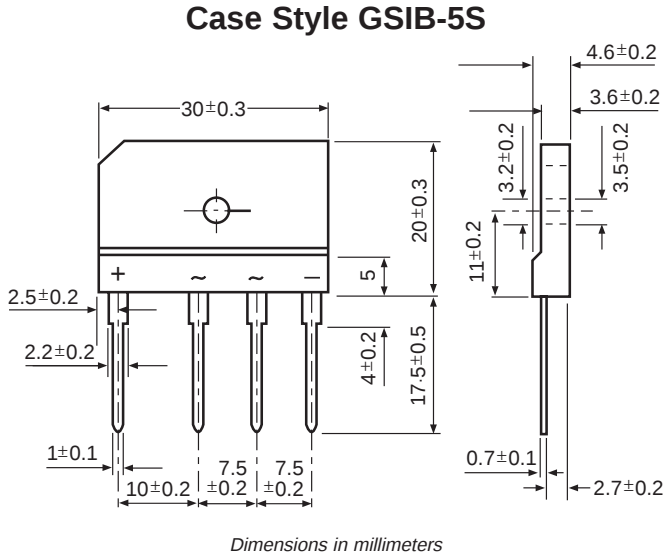
Case: GSIB-5S Molded plastic body

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

Mounting Position: Any (Note 3)

Mounting Torque: 8 in-lbs max.

Weight: 0.26oz., 7.0g



Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	GSIB2020	GSIB2040	GSIB2060	GSIB2080	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 = 87°C ⁽¹⁾ T _A = 25°C ⁽²⁾	I _{F(AV)}	20 3.5				A
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	240				A
Rating for fusing (t < 8.3ms)	I ² t	240				A ² sec
Maximum thermal resistance per leg	R _{θJA} R _{θJC}	22 ⁽²⁾ 1.5 ⁽¹⁾				°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150				°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	GSIB2020	GSIB2040	GSIB2060	GSIB2080	Unit
Maximum instantaneous forward voltage drop per leg at 10A	V _F	1.00				V
Maximum DC reverse current at rated DC blocking voltage per leg T _A = 25°C T _A = 125°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

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

Fig. 1 – Derating Curve Output Rectified Current

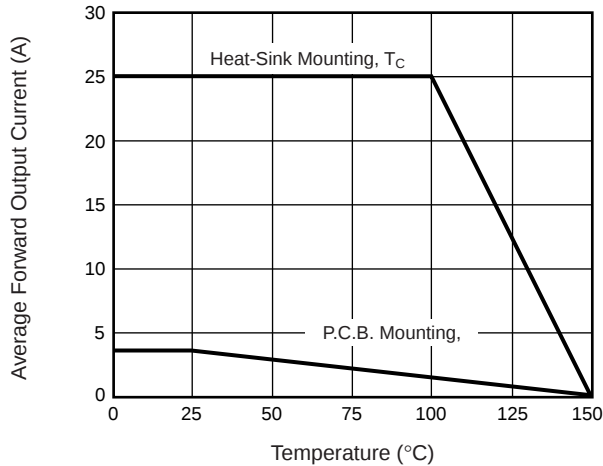


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current Per Leg

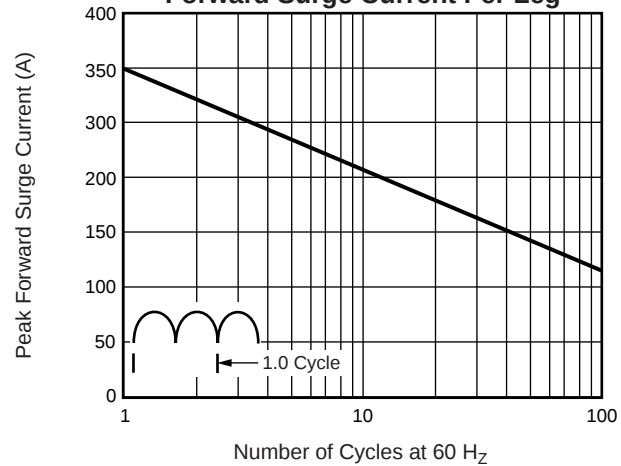


Fig. 3 – Typical Forward Characteristics Per Leg

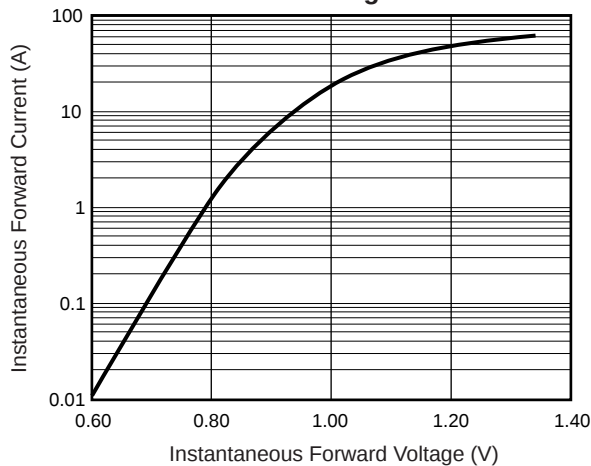


Fig. 4 – Typical Reverse Characteristics Per Leg

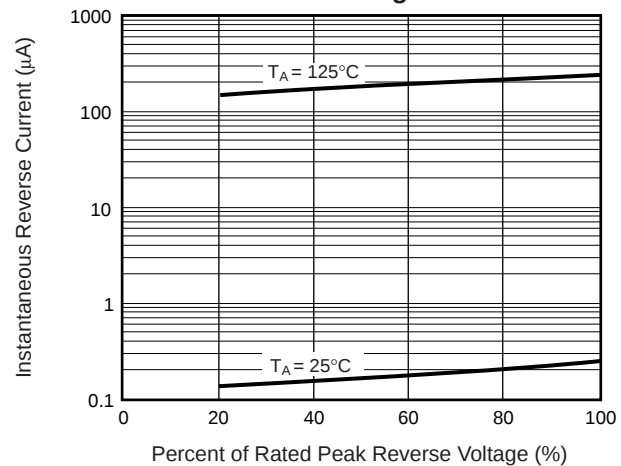


Fig. 5 – Typical Junction Capacitance Per Leg

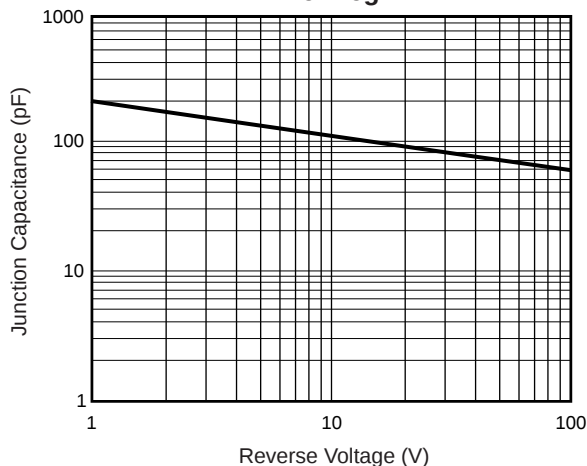


Fig. 6 – Typical Transient Thermal Impedance

