

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage: 150 V
Forward Current: 5.0 A

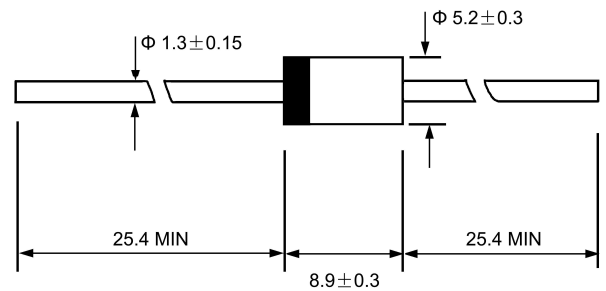
FEATURES

- Metal-Semiconductor junction with guard ring
- Epitaxial construction
- Low forward voltage drop, low swithing losses
- High surge capacity
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications

MECHANICAL DATA

- **Case:** JEDEC DO-27, molded plastic body
- **Terminals:** Axial lead ,solderable per MIL-STD-750, Method 2026
- **Polarity:** As marked
- **Mounting Position:** Any
- **Weight:** 0.041 unces,1.15 grams

DO-27



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	SB5150	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	150	V
Maximum RMS voltage	V_{RWS}	105	V
Maximum DC blocking voltage	V_{DC}	150	V
Maximum average forward total device rectified current @ $T_L=110^{\circ}\text{C}$	$I_{(AV)}$	5.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	120	A
Maximum instantaneous forward voltage @5.0A	V_F	0.90	V
Maximum reverse current @ $T_A=25^{\circ}\text{C}$ at rated DC blocking voltage @ $T_A=100^{\circ}\text{C}$	I_R	0.2 2.0	mA
Maximum thermal resistance (Note1)	$R_{\theta JA}$	40	$^{\circ}\text{C/W}$
Operating junction temperature range	T_J	-55 --- +150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 --- +150	$^{\circ}\text{C}$

NOTES: 1. Thermal resistance from junction to ambient.

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FIG.1 TYPICAL FORWARD CHARACTERISTICS

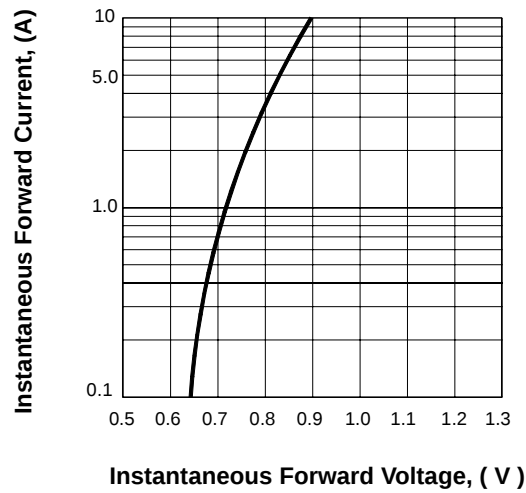


FIG.2 FORWARD DERATING CURVE

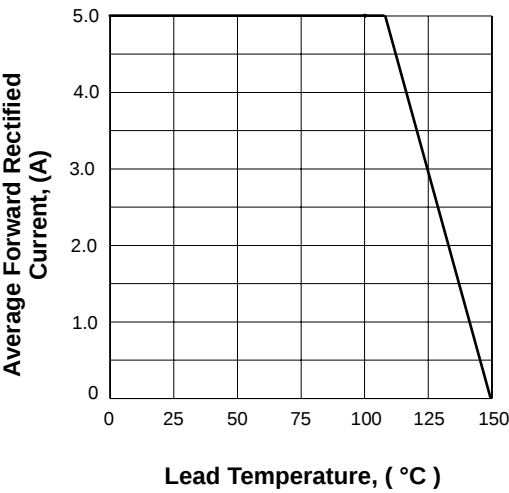


FIG.3 TYPICAL REVERSE CHARACTERISTICS

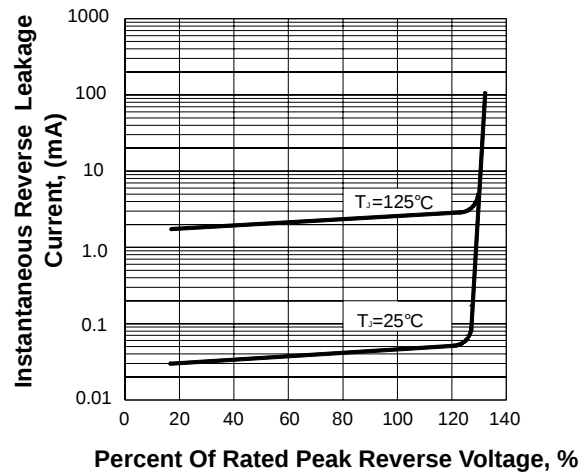


FIG.4 PEAK FORWARD SURGE CURRENT

