PRELIMINARY

SSR4045M
SSR4045Z

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada,CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

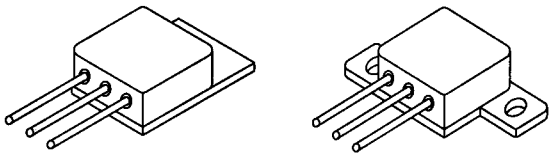
Designer's Data Sheet

40 AMP 45 VOLTS SCHOTTKY RECTIFIER

FEATURES:

- Low Reverse Leakage
- Low Forward Voltage Drop
- Guard Ring for Overvoltage protection
- Isolated Hermetically Sealed Power Package
- Ceramic Seals for Improved Hermeticity
- Custom Lead Forming Available
- Eutectic Die Attach
- 175°C Operating Temperature
- TX, TXV and Space Level Screening Available

TO-254 **TO-254Z**



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	45	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	**Io**	40	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, allow junction to reach equilibrium between pulses, TA=25°C)	**I_{FSM}**	600	**Amps**
Operating and storage temperature	**Top & Tstg**	-65 to +175	**°C**
Maximum Thermal Resistance Junction to Case	**$R_{\theta JC}$**	0.9	**°C/W**

Available with Glass or Ceramic Seals. Contact Factory for Details.

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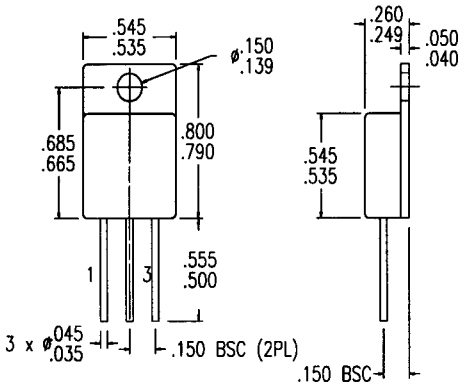
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (I_F = 10 Adc, T_A=25°C, 300µs Pulse) (I_F = 20 Adc, T_A=25°C, 300µs Pulse) (I_F = 40 Adc, T_A=25°C, 300µs Pulse)	V_{F1}	0.52 0.63 0.85	Vdc
Instantaneous Forward Voltage Drop (I_F = 20 Adc, T_A= - 55°C, 300µs Pulse)	V_{F2}	0.73	Vdc
Reverse Leakage Current (Rated VR, T_A=25°C, 300µs pulse minimum)	I_{R1}	400	µA
Reverse Leakage Current (Rated V_R, T_A=100°C, 300µs pulse minimum)	I_{R2}	30	mA
Junction Capacitance (V_R = 10 Vdc, T_A=25°C, f= 1 MHz)	C_J	1600	pf

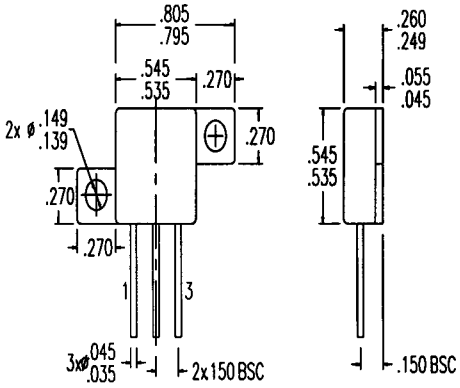
CASE OUTLINE: TO-254

PIN OUT:
PIN 1: CATHODE
PIN 2: ANODE
PIN 3: ANODE



CASE OUTLINE: TO-254Z

PIN OUT:
PIN 1: CATHODE
PIN 2: ANODE
PIN 3: ANODE



TYPICAL OPERATING CURVES

(TA=25°C Unless otherwise specified)

