PRELIMINARY

SOLID STATE DEVICES, INC

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

SSR1045M
SSR1045Z

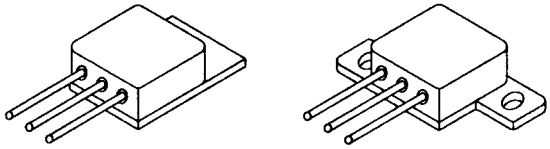
Designer's Data Sheet

10 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)	I_O	10	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}	150	Amps
Operating and storage temperature	T_{op} & T_{stg}	-65 to +175	˚C
Maximum Thermal Resistance Junction to Case	$R_{\theta JC}$	1.5	˚C/W

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

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET#: RS0135 B	MED

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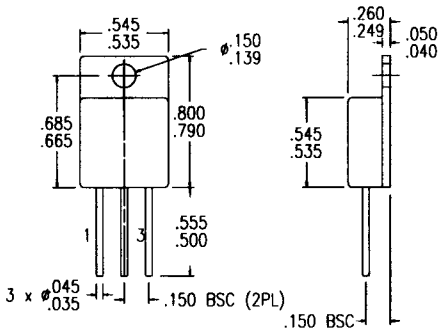
ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (I_F = 5 Adc, T_A=25˚C, 300µs Pulse) (I_F = 10 Adc, T_A=25˚C, 300µs Pulse)	V_{F1}	0.53 0.64	Vdc
Instantaneous Forward Voltage Drop (I_F = 5 Adc, T_A= - 55˚C, 300µs Pulse)	V_{F2}	0.59	Vdc
Reverse Leakage Current (Rated VR, T_A=25˚C, 300µs pulse minimum)	I_{R1}	100	µA
Reverse Leakage Current (Rated V_R, T_A=100˚C, 300µs pulse minimum)	I_{R2}	10	mA
Junction Capacitance (V_R = 10 Vdc, T_A=25˚C, f= 1 MHz)	C_J	400	pf

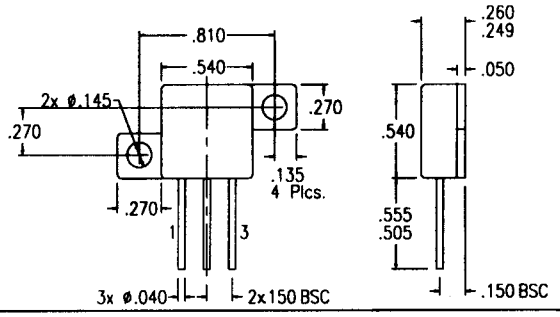
CASE OUTLINE: TO-254

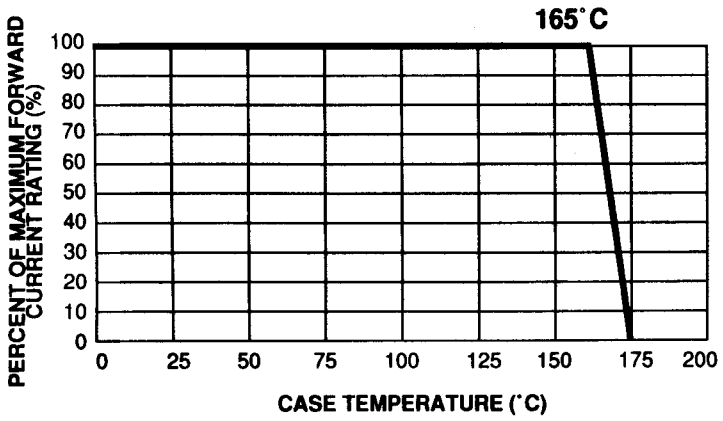
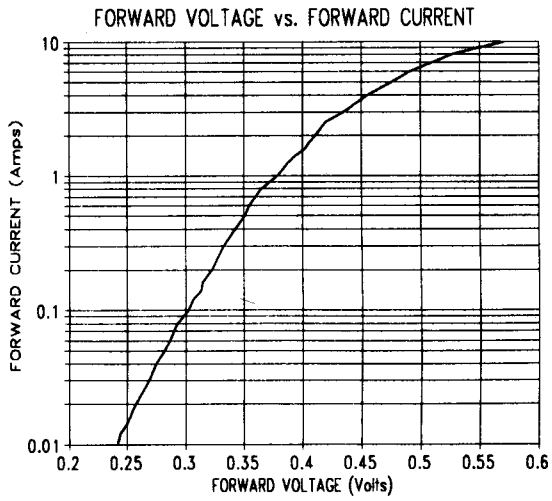
PIN OUT:
PIN 1: CATHODE
PIN 2: ANODE
PIN 3: ANODE



CASE OUTLINE: TO-254Z

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



TYPICAL OPERATING CURVES

(TA=25˚C Unless otherwise specified)