Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
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SSR2010J Series

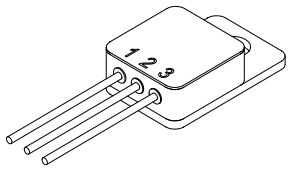
20 AMPS 100 VOLTS SCHOTTKY RECTIFER

Designer's Data Sheet

FEATURES:

- PIV: 100 Volts
- Average Output Current 25 Amps
- Low Reverse Leakage Current
- Low Forward Voltage Drop
- Guard Ring for Overvoltage Protection
- Isolated Hermetically Sealed Package
- Custom Lead Forming Available
- Eutectic Die Attach
- Ultrasonic Aluminum Wire Bonds
- 175°C Operating Junction Temperature
- TX, TXV, and Space Level Screening Available. Consult Factory.

TO-257(J)



MAXIMUM RATINGS 1/	Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	V_{RRM} V_{RWM} V_R	100	**Volts**
Average Rectified Forward Current 2/ (Resistive Load, 60 Hz, Sine Wave, T_A = 25°C)	I_O	20	**Amps**
Peak Surge Current 2/ (8.3 ms Pulse, Half Sine Wave, Superimposed on Io, Allow Junction to reach equilibrium between pulses, T_A = 25°C)	I_{FSM}	300	**Amps**
Operating and Storage Temperature	T_{OP} & T_{stg}	-65 to +175	**°C**
Maximum Thermal Resistance 2/ (Junction to Case)	$R_{\theta JC}$	1.0	**°C/W**

Available in the Following Configurations:
Rectifier: **SSR2010J, SSR2010JDB, and SSR2010JUB**
Common Cathode Centertap: **SSR2010CTJ, SSR2010CTJDB, and SSR2010CTJUB (See Data Sheet RS0073)**
Common Anode Centertap: **SSR2010CAJ, SSR2010CAJDB, and SSR2010CAJUB (See Data Sheet RS0073)**

NOTE:
1/ at room temperature, unless otherwise specified
2/ pins 2 and 3 connected together

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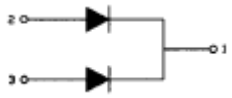
ELECTRICAL CHARACTERISTICS (per leg)		Symbol	Max	Unit
Instantaneous Forward Voltage Drop (T_A = 25°C, 300 µs Pulse)	I_F = 10 A I_F = 15 A I_F = 20 A	V_{F1} V_{F2} V_{F3}	0.8 0.97 1.00	**Volts**
Instantaneous Forward Voltage Drop (T_A = -55°C, 300 µs Pulse)	I_F = 10 A	V_{F4}	0.93	**Volts**
Reverse Leakage Current (Rated V_R, 300 µs pulse minimum)	T_A = 25°C T_C = 100°C	I_{R1} I_{R2}	200 10	**µA** **mA**
Junction Capacitance (V_R = 10 Vdc, T_A = 25°C, f = 1MHz)		C_J	800	**pf**

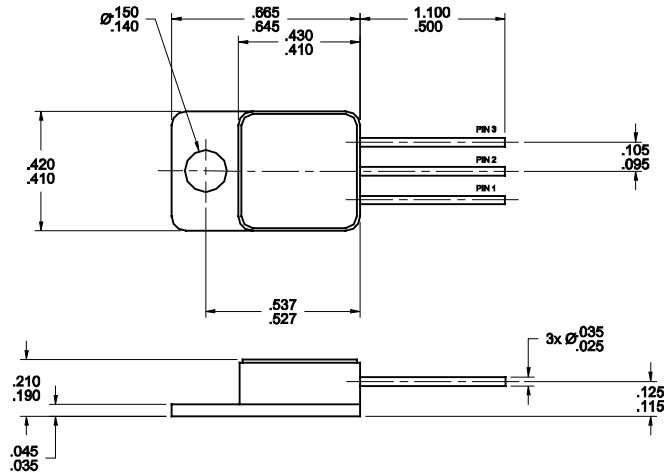
CASE OUTLINE:
TO-257 (Suffix J)

PIN OUT:
Rectifier Configuration

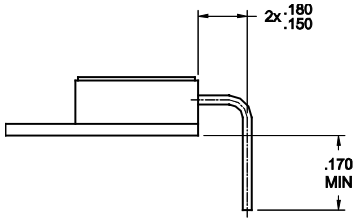
PIN 1: CATHODE
PIN 2: ANODE
PIN 3: ANODE



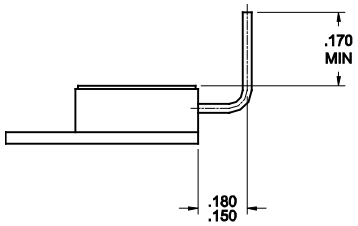
NOTE: pins 2 and 3 must be externally connected together for optimal performance



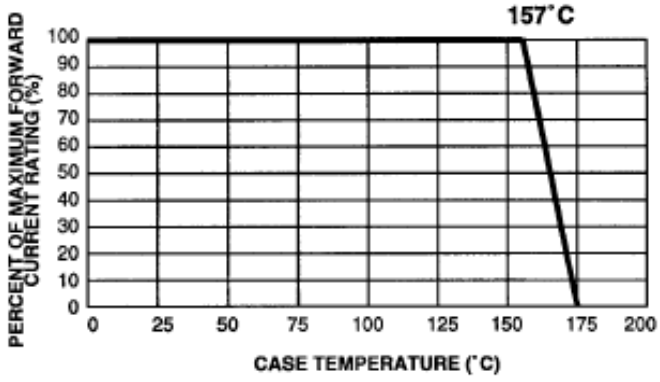
TO-257 with Bent Down Leads
(JDB Suffix)

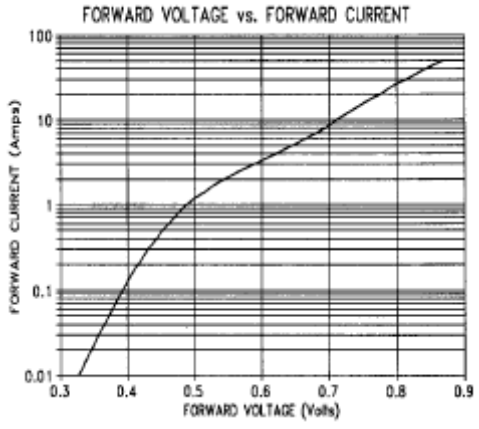


TO-257 with Bent Up Leads
(JUB Suffix)



TYPICAL OPERATING CURVES
(T_A = 25°C, Unless Otherwise Specified)





NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET #: RS0087G	DOC