

Solid State Devices, Inc.

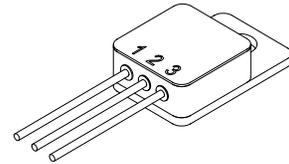
14701 Firestone Blvd * La Mirada, Ca 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

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.

SSR2010J Series

**20 AMPS
 100 VOLTS
 SCHOTTKY
 RECTIFIER**

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, $T_A = 25^\circ\text{C}$)	I_o	20	Amps
Peak Surge Current ^{2/} (8.3 ms Pulse, Half Sine Wave, Superimposed on I_o , Allow Junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$)	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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SSR2010J Series

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

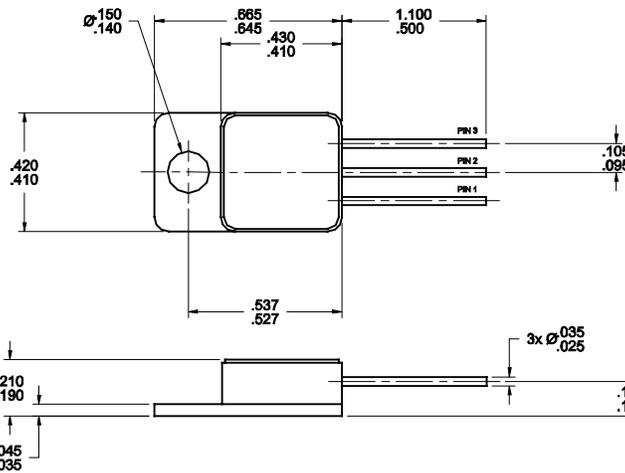
CASE OUTLINE:
TO-257 (Suffix J)

PIN OUT:
Rectifier Configuration

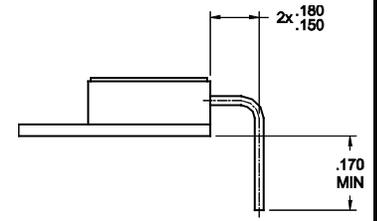
PIN 1: CATHODE
PIN 2: ANODE
PIN 3: ANODE



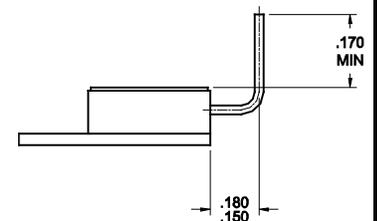
NOTE: pins 2 and 3 must be externally connected together for optimal performance



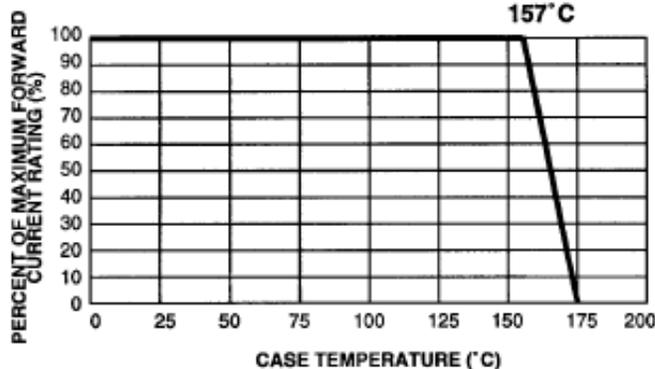
TO-257 with Bent Down Leads (JDB Suffix)



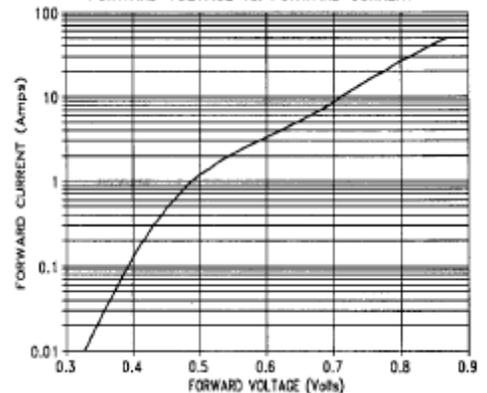
TO-257 with Bent Up Leads (JUB Suffix)



TYPICAL OPERATING CURVES
 ($T_A = 25^\circ\text{C}$, Unless Otherwise Specified)



FORWARD VOLTAGE vs. FORWARD CURRENT



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