



PRELIMINARY

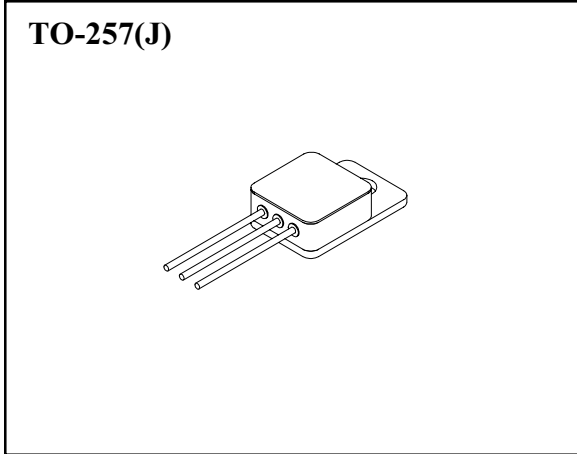
SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773

Designer's Data Sheet

**SDR1210CTJ
SDR1212CTJ**

**12AMPS
1000 - 1200 VOLTS
70 nsec
ULTRA FAST
CENTERTAP RECTIFIER**



- FEATURES:**
- Ultra Fast Recovery: 70 nsec Maximum
 - High Surge Rating
 - Low Reverse Leakage Current
 - Low Junction Capacitance
 - Hermetically Sealed Package
 - Gold Eutectic Die Attach Available
 - Ultrasonic Aluminum Wire Bonds
 - 175 °C Operating Junction Temperature
 - Also available in following configurations:
 Rectifier: SDR1210J & SDR1212J
 Doubler: SDR1210DJ & SDR1212DJ
 Doubler Reverse: SDR1210DRJ & SDR1212DRJ
 Common Anode: SDR1210CAJ & SDR1212CAJ
 - TX, TXV and Space Level Screening Available

Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDR1210CTJ SDR1212CTJ	V_{RRM} V_{RWM} V_R	1000 1200	Volts
Average Rectified Forward Current. (Resistive load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$) <u>1/</u>		I_o	12	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$) <u>1/</u>		I_{FSM}	50	Amps
Operating and Storage Temperature		T_{OP} & T_{stg}	-65 TO +175	°C
Maximum Thermal Resistance Junction to Case, <u>2/</u> Junction to Case, <u>1/</u>		$R_{\theta JC}$	1.2 2.4	°C/W

NOTE:

- 1/ Per Leg.
- 2/ Both Legs Tied Together

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

DATA SHEET #: RC0048A

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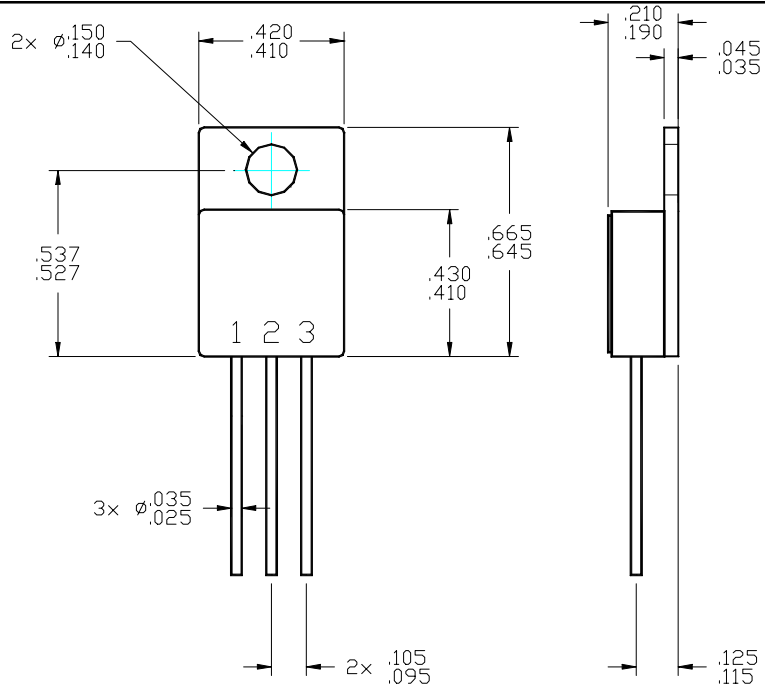


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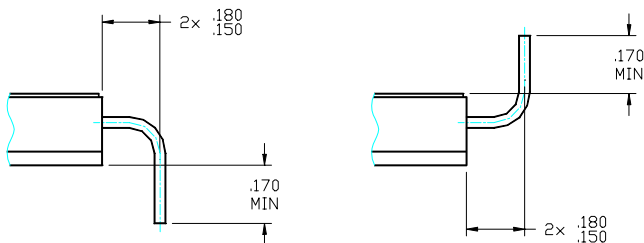
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Electrical Characteristics (Per Leg)	SYMBOL	MINIMUM	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μsec Pulse)	$I_F = 1\text{ A}$ V_{F1}	--	1.10	V_{DC}
	$I_F = 8\text{ A}$ V_{F2}	--	1.60	
	$I_F = 12\text{ A}$ V_{F2}	--	1.80	
Instantaneous Forward Voltage Drop ($I_F = 8\text{ A}$, 300 μsec pulse)	$T_A = 100^\circ\text{C}$ V_{F4}	--	1.45	V_{DC}
	$T_A = -55^\circ\text{C}$ V_{F5}	--	1.85	
Reverse Leakage Current (80% of Rated V_R , 300 μs pulse min.)	$T_A = 25^\circ\text{C}$ I_{R1}	--	20	μA
	$T_C = 100^\circ\text{C}$ I_{R2}	--	1.5	mA
Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)	C_J	--	400	pF
Reverse Recovery Time ($I_F = 500\text{mA}$, $I_R = 1.0\text{A}$, $I_{RR} = 250\text{ mA}$, $T_A = 25^\circ\text{C}$)	t_{RR}	--	70	nsec

CASE OUTLINE: TO-257 (Suffix J)



OPTIONAL LEAD BEND CONFIGURATION



SUFFIX JDB

SUFFIX JUB

PIN ASSIGNMENT

CODE	FUNCTION	PIN 1	PIN 2	PIN 3
--	Rectifier	Cathode	Anode	Anode
CT	Common Cathode	Anode	Cathode	Anode
CA	Common Anode	Cathode	Anode	Cathode
D	Doubler	Cathode	Common	Anode
DR	Doubler, Reverse	Anode	Common	Cathode