



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638

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SDR623CTJ & CAJ thru SDR625CTJ & CAJ

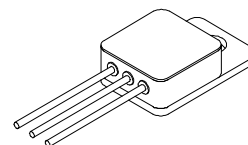
40AMPS
300 - 500 VOLTS
35 nsec
HYPER FAST
CENTERTAP RECTIFIER

Designer's Data Sheet

FEATURES:

- Hyper Fast Recovery: 35nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hyper Fast Recovery: 35nsec Maximum
- Isolated Hermetically Sealed Package
- Custom Lead Forming Available
- Eutectic Die Attach Available
- Ultrasonic Aluminum Wire Bonds
- TX, TXV and Space Level Screening Available

TO-257(J)



Available in Following Configurations:

Rectifier: SDR62_J, SDR62_JDB, and SDR62_JUB

Common Cathode Centertap: SDR62_CTJ, SDR62_CTJDB, and SDR62_CTJUB

Common Anode Centertap: SDR62_CAJ, SDR62_CAJDB, and SDR62_CAJUB

Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDR623CTJ & CAJ	V_{RRM}	300	Volts
	SDR624CTJ & CAJ	V_{RWM}	400	
	SDR625CTJ & CAJ	V_R	500	
Average Rectified Forward Current. (Resistive load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$) ^{1/}		I_o	40	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$) ^{1/}		I_{FSM}	250	Amps
Operating and Storage Temperature		$T_{OP} \& T_{stg}$	-65 TO +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case, ^{1/} Junction to Case, ^{2/}		R_{QJC}	2.1 1.0	$^\circ\text{C/W}$

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 #: RH0051C

**SDR623CTJ & CAJ
thru
SDR625CTJ & CAJ**

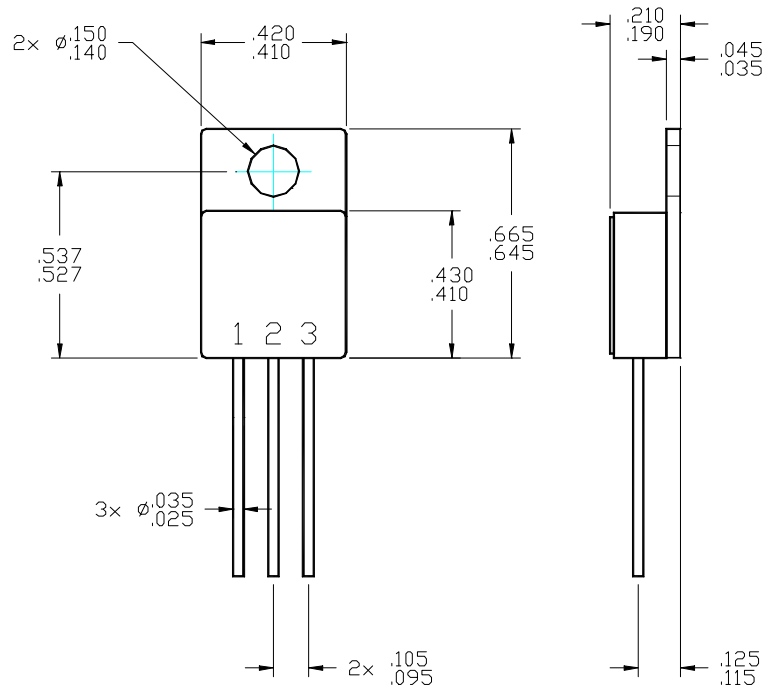


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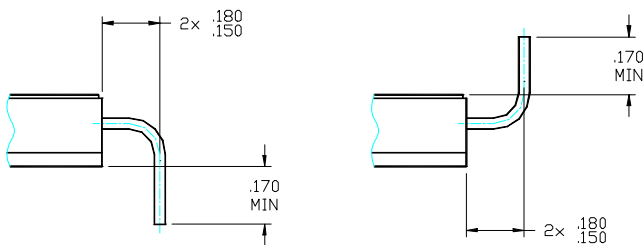
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Electrical Characteristics (Per Leg)		SYMBOL	MINIMUM	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μsec Pulse)	$I_F = 10\text{ A}$	V_{F1}	—	1.4	V_{DC}
	$I_F = 20\text{ A}$	V_{F2}	--	1.7	
Instantaneous Forward Voltage Drop ($I_F = 10\text{ A}$, 300 μsec pulse)	$T_A = 100^\circ\text{C}$	V_{F4}	--	1.3	V_{DC}
	$T_A = -55^\circ\text{C}$	V_{F5}	--	1.5	
Reverse Leakage Current (Rated V_R , 300 μs pulse min.)	$T_A = 25^\circ\text{C}$	I_{R1}	—	50	mA
	$T_C = 100^\circ\text{C}$	I_{R2}	—	5.0	mA
Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)		C_J	—	150	pF
Reverse Recovery Time ($I_F = 500\text{mA}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{mA}$, $T_A = 25^\circ\text{C}$)		t_{RR}	—	35	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
CT	Common Cathode	Anode1	Cathode	Anode2
CA	Common Anode	Cathode1	Anode	Cathode2