

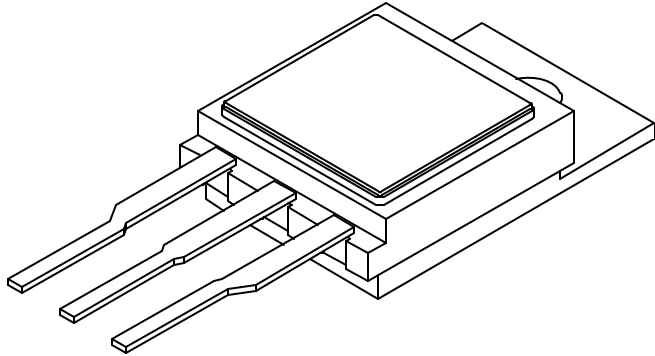
Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638
 Phone: (562) 404-7855 * Fax: (562) 404-1773
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**SDR623CTC
 Thru
 SDR626CTC**

DESIGNER'S DATA SHEET ^{1/}

CERAMIC TO-254



**40A 35nsec 300-600 V
 Hyper Fast Centertap Rectifier**

- Features:**
- Hyper Fast Recovery: 35nsec Maximum ^{3/}
 - High Surge Rating
 - Low Reverse Leakage Current
 - Low Junction Capacitance
 - Hermetically Sealed Package
 - Gold Eutectic Die Attach
 - Ultrasonic Aluminum Wire Bonds
 - Common Anode and Doubler Versions Available
 - Flat Leads for Low Inductance
 - TX, TXV, and S-Level Screening Available ^{2/}

Maximum Ratings	Symbol	Value	Units
Peak Repetitive Reverse Voltage	SDR623CTC SDR624CTC SDR625CTC SDR626CTC	V_{RRM} V_{RWM} 500 V_R 600	300 400 500 600 Volts
Average Rectified Forward Current ^{4/} (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ C$)	I_o	40	Amps
Peak Surge Current ^{5/} (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ C$)	I_{FSM}	200	Amps
Operating & Storage Temperature	$T_{OP} \& T_{STG}$	-65 to +200	$^\circ C$
Maximum Total Thermal Resistance Junction to Case ^{4/} Junction to Case ^{5/}	R_{qJC}	1.0 2.1	$^\circ C/W$

Notes:

1/ For ordering information, Price, Operating Curves, and Availability- Contact Factory.
 2/ Screened to MIL-PRF-19500.
 3/ Recovery Conditions: $I_F = 0.5$ Amp, $I_R = 1.0$ Amp, rec. to .25 Amp.
 4/ Both Legs Tied Together.
 5/ Each Leg.

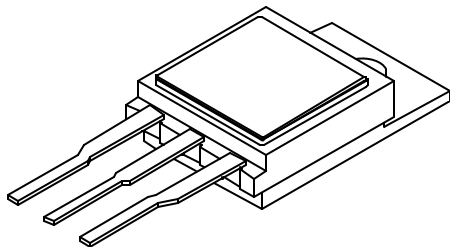


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Electrical Characteristics, per leg		Symbol	Max	Units
Instantaneous Forward Voltage Drop ($I_F = 10\text{Adc}$, Pulse)	$T_A = 25^\circ\text{C}$	V_{F1}	1.4	V_{DC}
	$T_A = 25^\circ\text{C}$	V_{F2}	1.6	
Instantaneous Forward Voltage Drop ($I_F = 10\text{Adc}$, Pulse)	$T_A = 100^\circ\text{C}$	V_{F3}	1.3	V_{DC}
	$T_A = -55^\circ\text{C}$	V_{F4}	1.5	
Reverse Leakage Current (100% of rated V_R , Pulse)	$T_A = 25^\circ\text{C}$	I_{R1}	50	mA
	$T_A = 100^\circ\text{C}$	I_{R2}	5	mA
Reverse Recovery Time ($I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$, $T_A = 25^\circ\text{C}$)		t_{rr}	35	nsec
Junction Capacitance ($V_R = 10V_{DC}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)		C_J	150	pF



PIN ASSIGNMENT			
Configuration	Pin 1	Pin 2	Pin 3
Common Cathode	Anode 1	Cathode	Anode 2
Common Anode	Cathode 1	Anode	Cathode 2
Doubler	Cathode	Common	Anode
Doubler Reverse	Anode	Common	Cathode

TO-254C Outline:

Tolerances, Unless Specified Otherwise - .XX ± .020"
.XXX ± .010"