



Solid State Devices, Inc.

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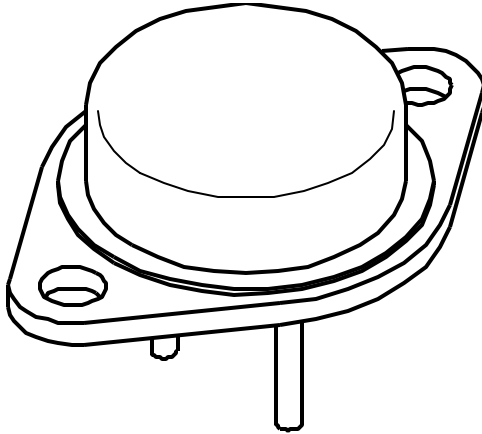
SDR623CT/3

Thru

SDR626CT/3

DESIGNER'S DATA SHEET ^{1/}

TO-3



**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
- Ceramic Seals for Improved Hermeticity ^{2/}
- TX, TXV, and S-Level Screening Available ^{2/}

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse Voltage	SDR623CT/3	V_{RRM}	300	Volts
	SDR624CT/3	V_{RWM}	400	
	SDR625CT/3	V_R	500	
	SDR626CT/3		600	
Average Rectified Forward Current ^{4/} (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$)		I_o	40	Amps
Peak Surge Current ^{5/} (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$)		I_{FSM}	200	Amps
Operating & Storage Temperature		$T_{OP} \& T_{STG}$	-65 to +200	$^\circ\text{C}$
Maximum Total Thermal Resistance		R_{qJC}	1.45	$^\circ\text{C/W}$
Junction to Case ^{4/}			2.3	
Junction to Case ^{5/}				

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.

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

DATA SHEET #: RH0123B

DOC

SDR623CT/3
Thru
SDR626CT/3

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}	1.30	V_{DC}
	$T_A = 25^\circ\text{C}$	V_{F2}	1.45	
Instantaneous Forward Voltage Drop ($I_F = 10\text{Adc}$, Pulse)	$T_A = 100^\circ\text{C}$	V_{F3}	1.2	V_{DC}
	$T_A = -55^\circ\text{C}$	V_{F4}	1.4	
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	Case
Common Cathode	Anode	Anode	Cathode
Common Anode	Cathode	Cathode	Anode
Doubler	Anode	Cathode	Common
Doubler Reverse	Cathode	Anode	Common

