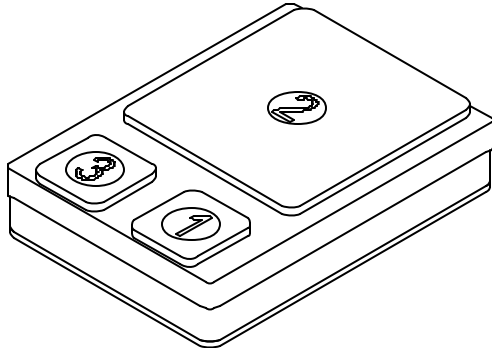


Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638
 Phone: (562) 404-7855 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

DESIGNER'S DATA SHEET ^{1/}

SMD1



**SDR623CTS1
 Thru
 SDR626CTS1**

**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 Surface Mount Package**
- **Gold Eutectic Die Attach**
- **Ultrasonic Aluminum Wire Bonds**
- **TX, TXV, and S-Level Screening Available ^{2/}**

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse Voltage	SDR623CTS1	V_{RRM}	300	Volts
	SDR624CTS1	V_{RWM}	400	
	SDR625CTS1	V_R	500	
	SDR626CTS1		600	
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		R_{qJC}	1.3	$^\circ C/W$
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 #: RH0055B

DOC



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**SDR623CTS1
 Thru
 SDR626CTS1**

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}	1.35	V_{DC}
	$T_A = 25^\circ\text{C}$	V_{F2}	1.50	
Instantaneous Forward Voltage Drop ($I_F = 10\text{Adc}$, Pulse)	$T_A = 100^\circ\text{C}$	V_{F3}	1.25	V_{DC}
	$T_A = -55^\circ\text{C}$	V_{F4}	1.45	
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			
PACKAGE	Pin 1	Pin 2	Pin 3
SMD1	Anode	Cathode	Anode

