

SDR623CTS1 Thru SDR626CTS1

DESIGNER'S DATA SHEET

Part Number/Ordering Information^{1/}

SDR62 _ CT _ _

L Screening^{2/}

_ = Not Screened
 TX = TX Level
 TXV = TXV Level
 S = S Level

Package

S1 = SMD1

L Family/Voltage

3 = 300 V
 4 = 400 V
 5 = 500 V
 6 = 600 V

40 Amp
300 - 600 Volts
35 nsec

Hyperfast Centertap Rectifier

Features:

- Hyperfast Recovery: 35 nsec 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	Unit
Peak Repetitive Reverse Voltage SDR623CTS1 SDR624CTS1 SDR625CTS1 SDR626CTS1	V_{RRM} V_{RWM} V_R	300 400 500 600	V
Average Rectified Forward Current ^{4/} (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$)	I_O	40	A
Peak Surge Current ^{5/} (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$)	I_{FSM}	200	A
Operating & Storage Temperature	T_{OP} & T_{STG}	-65 to +200	$^\circ\text{C}$
Maximum Total Thermal Resistance Junction to Case ^{4/} Junction to Case ^{5/}	$R_{\theta JC}$	1.3 2.3	$^\circ\text{C/W}$

Notes:

1/ For ordering information, price, operating curves, and availability - contact factory.

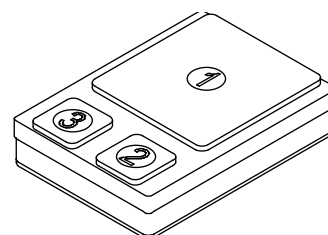
2/ Screening based on MIL-PRF-19500. Screening flows available on request.

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.

SMD1





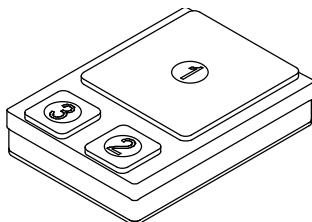
Solid State Devices, Inc.

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

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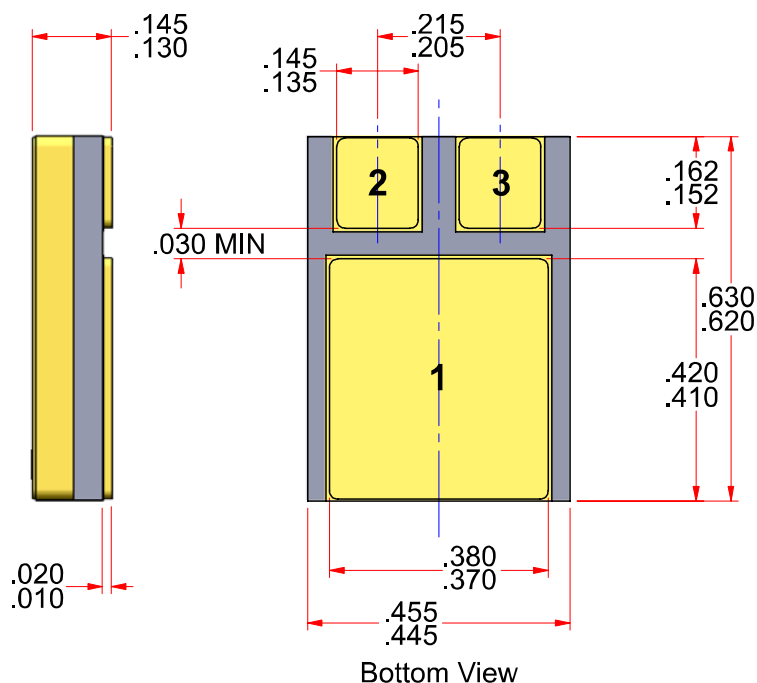
Electrical Characteristics, per leg		Symbol	Max	Unit
Instantaneous Forward Voltage Drop ($I_F = 10$ Adc, Pulse) ($I_F = 20$ Adc, Pulse)	$T_A = 25^\circ\text{C}$	V_{F1}	1.35	V_{DC}
	$T_A = 25^\circ\text{C}$	V_{F2}	1.50	
Instantaneous Forward Voltage Drop ($I_F = 10$ Adc, Pulse)	$T_A = 100^\circ\text{C}$	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	μA
	$T_A = 100^\circ\text{C}$	I_{R2}	5	mA
Reverse Recovery Time ($I_F = 0.5$ A, $I_R = 1$ A, $I_{RR} = 0.25$ A, $T_A = 25^\circ\text{C}$)		t_{RR}	35	nsec
Junction Capacitance ($V_R = 10$ V $_{DC}$, $T_A = 25^\circ\text{C}$, $f = 1$ MHz)		C_J	150	pF

SMD1 Outline:



Tolerances

Unless Specified - .XX $\pm .020''$
.XXX $\pm .010''$



Bottom View

PIN ASSIGNMENT			
PACKAGE	Pin 1	Pin 2	Pin 3
SMD1	Cathode	Anode 1	Anode 2

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

DATA SHEET #: RH0055C

DOCX