

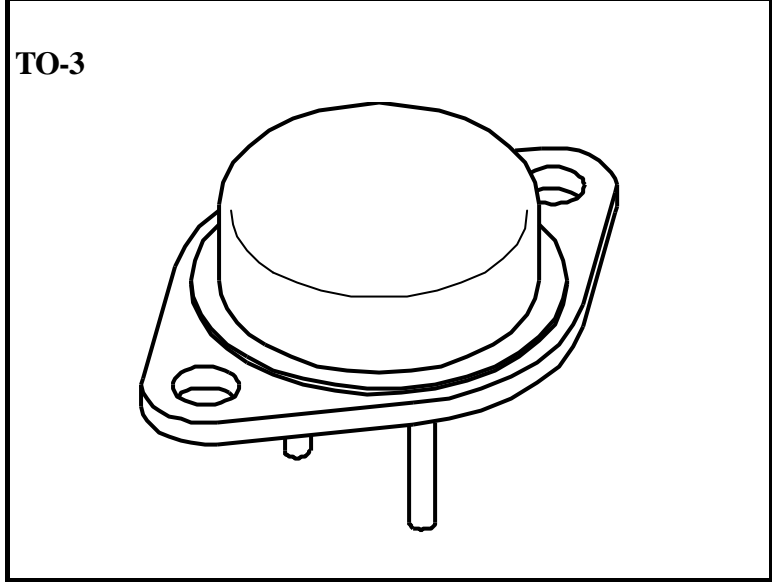


**Solid State Devices, Inc.**

14701 Firestone Blvd \* La Mirada, CA 90638  
 Phone: (562) 404-7855 \* Fax: (562) 404-1773  
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**SDR623CT/3  
 Thru  
 SDR626CT/3**

**DESIGNER'S DATA SHEET <sup>1/</sup>**



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

- Features:**
- Hyper Fast Recovery: 35nsec Maximum <sup>3/</sup>
  - 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 Available
  - TX, TXV, and S-Level Screening Available <sup>2/</sup>

Maximum Ratings	Symbol	Value	Units
Peak Repetitive Reverse Voltage SDR623CT/3 SDR624CT/3 SDR625CT/3 SDR626CT/3	$V_{RRM}$ $V_{RWM}$ $V_R$	300 400 500 600	Volts
Average Rectified Forward Current <sup>4/</sup> (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ C$ )	$I_o$	40	Amps
Peak Surge Current <sup>5/</sup> (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 <sup>4/</sup> Junction to Case <sup>5/</sup>	$R_{qJC}$	1.45 2.3	$^\circ C/W$

**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
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 10A_{dc}$ , Pulse)	$T_A = 25^\circ C$	$V_{F1}$	1.30	$V_{DC}$
	$T_A = 25^\circ C$	$V_{F2}$	1.45	
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 10A_{dc}$ , Pulse)	$T_A = 100^\circ C$	$V_{F3}$	1.2	$V_{DC}$
	$T_A = -55^\circ C$	$V_{F4}$	1.4	
<b>Reverse Leakage Current</b> (100% of rated $V_R$ , Pulse)	$T_A = 25^\circ C$	$I_{R1}$	50	$mA$
	$T_A = 100^\circ C$	$I_{R2}$	5	$mA$
<b>Reverse Recovery Time</b> ( $I_F = 0.5A$ , $I_R = 1A$ , $I_{RR} = 0.25A$ , $T_A = 25^\circ C$ )		$t_{rr}$	35	nsec
<b>Junction Capacitance</b> ( $V_R = 10V_{DC}$ , $T_A = 25^\circ C$ , $f = 1MHz$ )		$C_J$	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

