

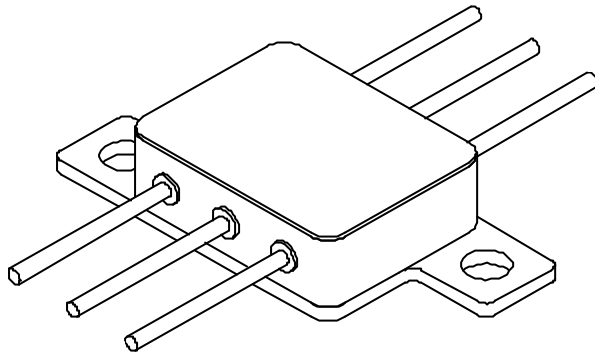


**Solid State Devices, Inc.**

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 <sup>1/</sup>**

**6 Pin TO-259**



**SDR623CT/CA  
 thru  
 SDR626CT/CA**

**40A 35nsec 300-600 V  
 Common Anode & Common Cathode  
 Hyper Fast Centertap Rectifier**

**Features:**

- Hyper Fast Recovery: 35nsec Maximum <sup>3/</sup>
- Isolated Low Profile Package
- Low Reverse Leakage Current
- Eutectic Die Attach Available
- Hermetically Sealed Package
- Dual Centertap: 1 Common Anode,  
 1 Common Cathode
- Optional Bent Leads Available
- TX, TXV, and S-Level Screening Available <sup>2/</sup>

Maximum Ratings <sup>6/</sup>		Symbol	Value	Units
Peak Repetitive Reverse Voltage	SDR623CT/CA	$V_{RRM}$	300	Volts
	SDR624CT/CA	$V_{RWM}$	400	
	SDR625CT/CA	$V_R$	500	
	SDR626CT/CA		600	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ C$ )	Total	$I_o$	80	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>		$R_{qJC}$	0.65 1.9	$^\circ C/W$

**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 0.25 Amp.
- 4/ All Legs Tied Together.
- 5/ Each Leg.
- 6/ Ratings at  $25^\circ C$  (Unless Otherwise Specified).

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

**DATA SHEET #: RH0231G**

**DOC**



**Solid State Devices, Inc.**

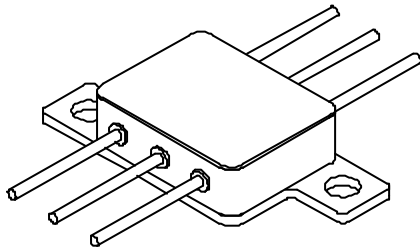
14701 Firestone Blvd \* La Mirada, CA 90638

Phone: (562) 404-7855 \* Fax: (562) 404-1773

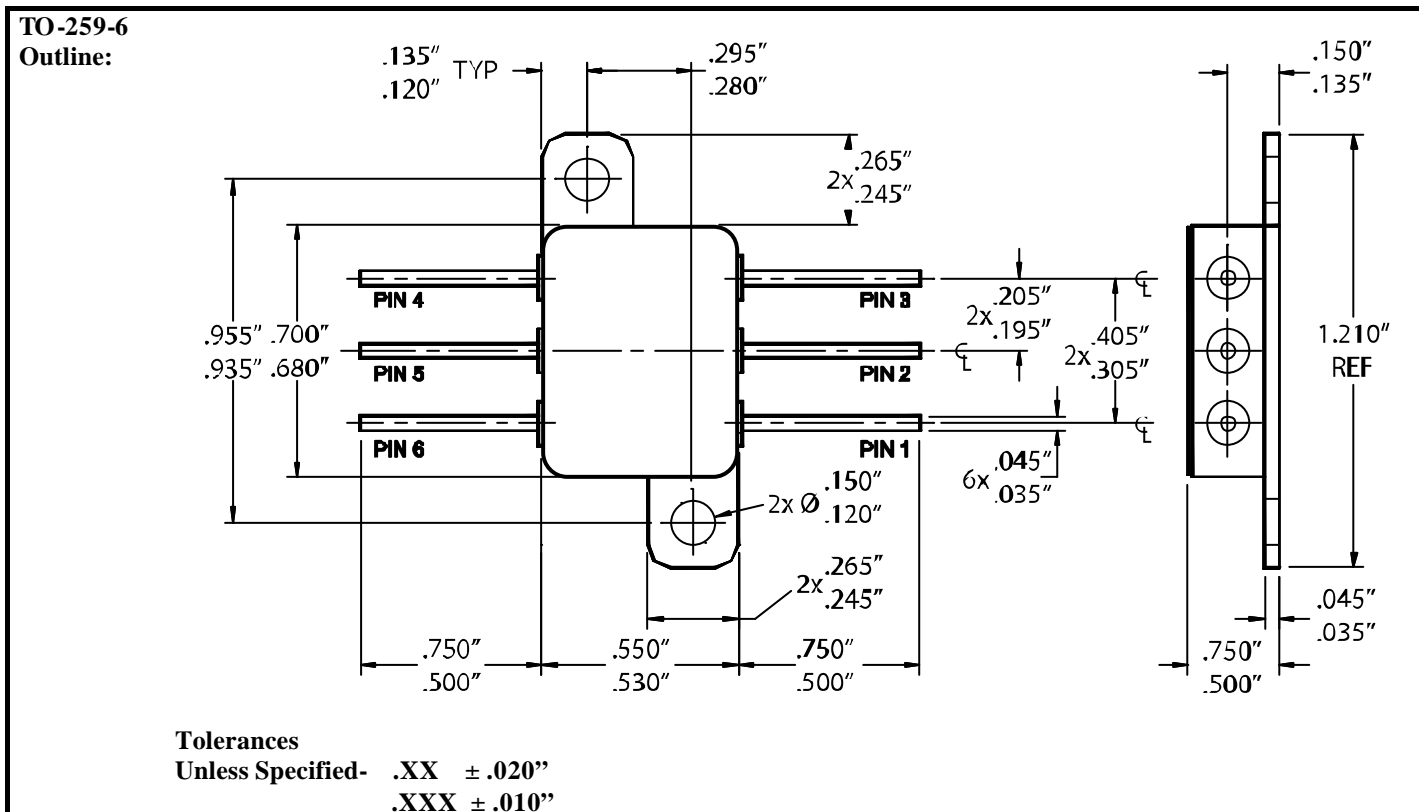
ssdi@ssdi-power.com \* www.ssdi-power.com

**SDR623CT/CA  
thru  
SDR626CT/CA**

Electrical Characteristics		Symbol	Max	Units
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 10\text{Adc}$ , Pulse)	$T_A = 25^\circ\text{C}$	$V_{F1}$	1.45	$V_{DC}$
	$T_A = 25^\circ\text{C}$	$V_{F2}$	1.65	
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 10\text{Adc}$ , Pulse)	$T_A = 100^\circ\text{C}$	$V_{F3}$	1.35	$V_{DC}$
	$T_A = -55^\circ\text{C}$	$V_{F4}$	1.55	
<b>Reverse Leakage Current</b> (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
<b>Reverse Recovery Time</b> ( $I_F = 0.5\text{A}$ , $I_R = 1\text{A}$ , $I_{RR} = 0.25\text{A}$ , $T_A = 25^\circ\text{C}$ )		$t_{rr}$	35	nsec
<b>Junction Capacitance</b> ( $V_R = 10V_{DC}$ , $T_A = 25^\circ\text{C}$ , $f = 1\text{MHz}$ )		$C_J$	150	pF



PIN ASSIGNMENT			
<b>Configuration</b>	<b>Pin 1</b>	<b>Pin 2</b>	<b>Pin 3</b>
<b>Common Cathode</b>	Anode 1	Cathode	Anode 2
<b>Configuration</b>	<b>Pin 4</b>	<b>Pin 5</b>	<b>Pin 6</b>
<b>Common Anode</b>	Cathode 1	Anode	Cathode 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 #: RH0231G**

**DOC**