



# Solid State Devices, Inc.

14830 Valley View Blvd \* La Mirada, CA 90638

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

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## SDR966CTN & SDR966CTP thru SDR969CTN & SDR969CTP

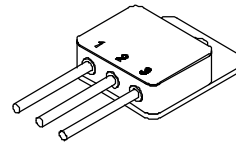
### DESIGNER'S DATA SHEET

#### Features:

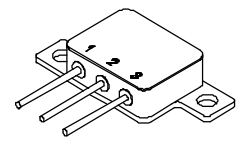
- Soft Recovery Diode
- Ultra Fast Recovery: 80 nsec Maximum
- Faster Recovery Versions Available
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Package
- Gold Eutectic Die Attach Available
- Ultrasonic Aluminum Wire Bond
- Ceramic Seals for Improved Hermeticity Available
- Common Anode and Doubler Versions Available
- TX, TXV, Space Level Screening Available. Consult Factory.

**60 AMP**  
**600 - 900 Volts**  
**80 nsec**  
**Ultra Fast Recovery**  
**Centertap Rectifier**

TO-258 (N)



TO-259 (P)



Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SDR966CTN & SDR966CTP	$V_{RRM}$	600	Volts
	SDR967CTN & SDR967CTP	$V_{RWM}$	700	
	SDR968CTN & SDR968CTP	$V_R$	800	
	SDR969CTN & SDR969CTP		900	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$ ) <sup>1/</sup>		$I_o$	60	Amps
Peak Surge Current (Per Leg) (8.3 ms Pulse, Half Sine Wave Superimposed on $I_o$ , Allow Junction to Reach Equilibrium Between Pulses, $T_A = 25^\circ\text{C}$ )		$I_{FSM}$	500*	Amps
Operating & Storage Temperature		Top & Tstg	-65 to +200	°C
Maximum Thermal Resistance Junction to Case, Each Individual Diode		$R_{\theta JE}$	1.3	°C/W
Junction to Case <sup>1/</sup>			0.7	

#### Notes:

<sup>1/</sup> Both Legs Tied Together

\* Available with Higher Surge Rating

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

DATA SHEET #: RU0077B

DOC



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**SDR966CTN & SDR966CTP  
thru  
SDR969CTN & SDR969CTP**

Electrical Characteristics (Per Leg)		Symbol	Min	Max	Units
<b>Instantaneous Forward Voltage Drop</b> ( $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)	$I_F = 15\text{A}$	$V_{F1}$	—	1.20	Volts
	$I_F = 30\text{A}$	$V_{F2}$	—	1.35	
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 15\text{A}$ , 300 $\mu\text{s}$ Pulse)	$T_A = 100^\circ\text{C}$	$V_{F3}$	—	1.10	Volts
	$T_A = -55^\circ\text{C}$	$V_{F4}$	—	1.30	
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse minimum)		$I_{R1}$	—	100	$\mu\text{A}$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse minimum)		$I_{R2}$	—	10	mA
<b>Junction Capacitance</b> ( $V_R = 10\text{ Vdc}$ , $T_A = 25^\circ\text{C}$ , $f = 1\text{MHz}$ )		$C_J$	—	100	pF
<b>Reverse Recovery Time</b> ( $I_F = 500\text{ mA}$ , $I_R = 1\text{A}$ , $I_{RR} = 0.25\text{A}$ )	$T_A = 25^\circ\text{C}$	$t_{rr}$	—	80	nsec

