



Solid State Devices, Inc.

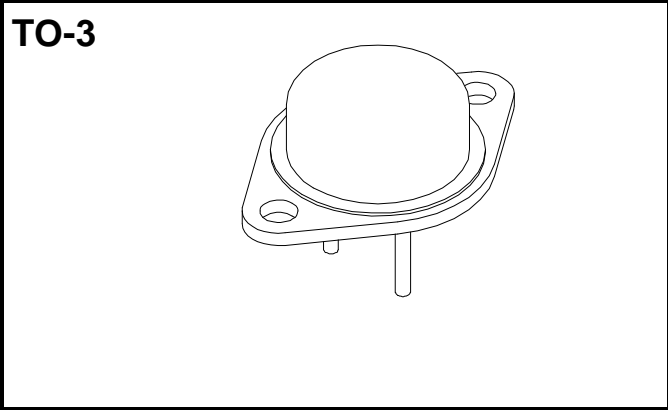
14701 Firestone Blvd * La Mirada, Ca 90638
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**SDR998CT/3
 thru
 SDR9912CT/3**

DESIGNER'S DATA SHEET

- Features:**
- Ultra Fast Recovery: 60 nsec typical
 - High Surge Rating
 - Low Reverse Leakage Current
 - Low Forward Voltage Drop
 - Low Junction Capacitance
 - Hermetically Sealed Package
 - Gold Eutectic Die Attach available
 - Ultrasonic Aluminum Wire Bonds
 - TX, TXV, Space Level Screening Available Consult Factory.

**100 AMP
 800 -1200 Volts
 80 nsec
 ULTRA FAST COMMON CATHODE
 CENTERTAP RECTIFIER**



Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SDR998CT/3	V_{RRM}	800	Volts
	SDR999CT/3		900	
	SDR9910CT/3	V_{RWM}	1000	
	SDR9911CT/3		1100	
	SDR9912CT/3	V_R	1200	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$)note 1		I_o	100	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave , $T_A = 25^\circ\text{C}$, per leg)		I_{FSM}	600	Amps
Operating & Storage Temperature		Top & Tstg	-65 to +200	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case, each individual diode Junction to Case, note 1		R_{qJE}	1.1 0.75	$^\circ\text{C/W}$

Note 1: Both legs in parallel



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Electrical Characteristics		Symbol	Min	Max	Units
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μsec pulse)	$I_F = 25\text{A dc}$ $I_F = 50\text{A dc}$	V_{F1}	—	1.85 2.1	Volts
Instantaneous Forward Voltage Drop ($T_A = -55^\circ\text{C}$, 300 μsec pulse) ($T_A = 100^\circ\text{C}$, 300 μsec pulse)	$I_F = 25\text{A dc}$ $I_F = 25\text{A dc}$	V_{F2}	—	1.75 1.9	Volts
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μsec pulse minimum)		I_{R1}	—	100	mA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μsec pulse minimum)		I_{R2}	—	10	mA
Junction Capacitance ($V_R = 10\text{V dc}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)		C_J	—	100	pF
Reverse Recovery Time ($I_F = 500\text{mA}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$)	$T_A = 25^\circ\text{C}$	t_{rr}	—	80	nsec

Case Outline: TO-3

Pin1: Cathode

Pin2: Anode 1

Pin3: Anode 2

