



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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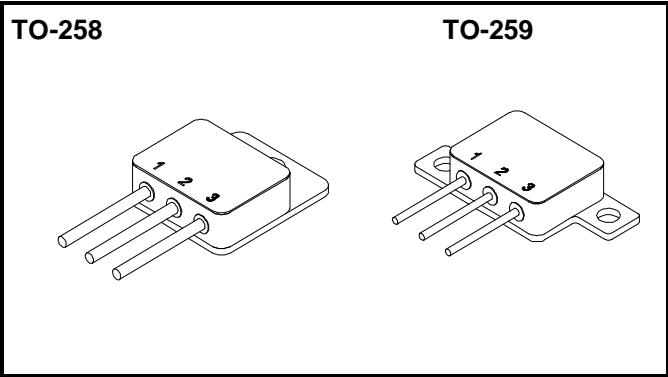
**SDR998CTN&P
 thru
 SDR9912CTN&P**

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

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
- Ceramic Seals for improved hermeticity available
- Available in Common Anode and Doubler versions:
 SDR998CAN&P-SDR9912CAN&P
 SDR998DN&P-SDR9912DN&P
- TX, TXV, Space Level Screening Available Consult
 Factory.



Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SDR998CTN&P	V_{RRM}	800	Volts
	SDR999CTN&P		900	
	SDR9910CTN&P	V_{RWM}	1000	
	SDR9911CTN&P		1100	
	SDR9912CTN&P	V_R	1200	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^{\circ}C$)note 1, 2		I_o	60	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_o , Allow Junction to Reach Equilibrium Between Pulses, $T_A = 25^{\circ}C$)note 2		I_{FSM}	550	Amps
Operating & Storage Temperature		Top & Tstg	-65 to +200	$^{\circ}C$
Maximum Thermal Resistance Junction to Case, each individual diode Junction to Case, note 1		R_{qJE}	0.9 0.5	$^{\circ}C/W$

Note 1: Both legs tied together
 Note 2: Package limited



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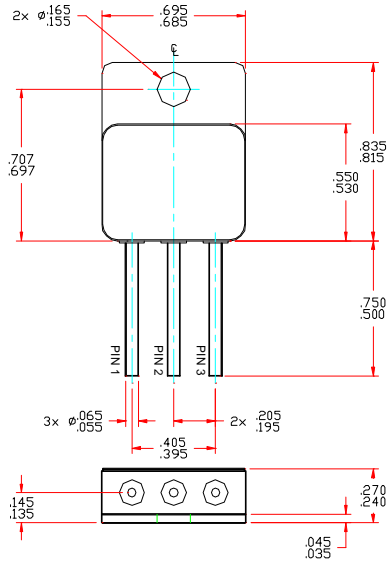
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Electrical Characteristics		Symbol	Min	Max	Units
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μsec pulse)	$I_F = 25\text{A dc}$ $I_F = 50\text{A dc}$	V_{F1}	—	1.95 2.25	Volts
Instantaneous Forward Voltage Drop ($T_A = -55^\circ\text{C}$, 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}	—	1.85 2.00	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 ($V_R = 10\text{ Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)		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

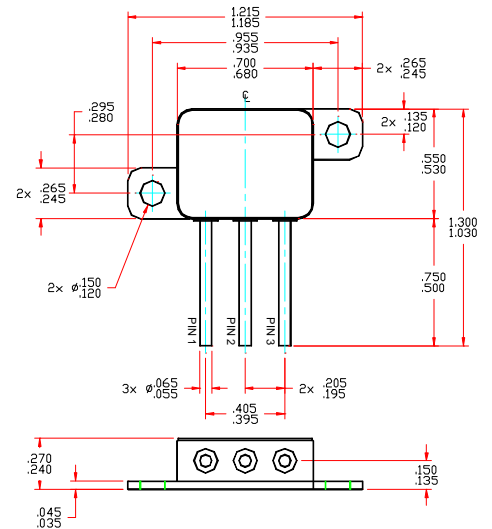
Case Outline: TO-258

- Pin1: Cathode**
- Pin2: Anode**
- Pin3: Anode**



Case Outline: TO-259

- Pin1: Cathode**
- Pin2: Anode**
- Pin3: Anode**



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

DATA SHEET #: RU0119B

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