

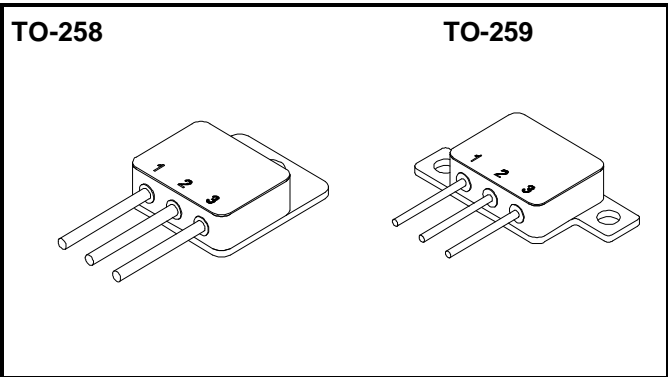
**SDR998N&P
 thru
 SDR9912N&P**

**50 AMP
 800 -1200 Volts
 80 nsec
 Ultra Fast Recovery
 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
- TX, TXV, Space Level Screening Available Consult Factory.



Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SDR998N&P	V_{RRM}	800	Volts
	SDR999N&P		900	
	SDR9910N&P	V_{RWM}	1000	
	SDR9911N&P		1100	
	SDR9912N&P	V_R	1200	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$)note 1		I_o	50	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_o , Allow Junction to Reach Equilibrium Between Pulses, $T_A = 25^\circ\text{C}$)note 2		I_{FSM}	550	Amps
Operating & Storage Temperature		Top & Tstg	-65 to +200	$^\circ\text{C}$
Maximum Thermal Resistance Junction to End Tab, note 1		R_{qJE}	0.5	$^\circ\text{C/W}$

Note 1: Pins 2&3 connected
 Note 2: High surge ratings available



Solid State Devices, Inc.

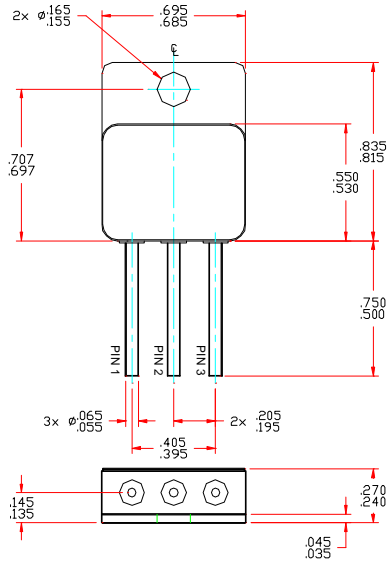
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 Phone: (562) 404-7855 * Fax: (562) 404-1773
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 SDR9912N&P**

Electrical Characteristics		Symbol	Min	Max	Units
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μsec pulse)	$I_F = 50\text{A dc}$ $I_F = 100\text{A dc}$	V_{F1}	—	1.75 2.3	Volts
Instantaneous Forward Voltage Drop ($T_A = -55^\circ\text{C}$, 300 μsec pulse) ($T_A = 100^\circ\text{C}$, 300 μsec pulse)	$I_F = 50\text{A dc}$ $I_F = 50\text{A dc}$	V_{F2}	—	1.7 1.85	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	—	150	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

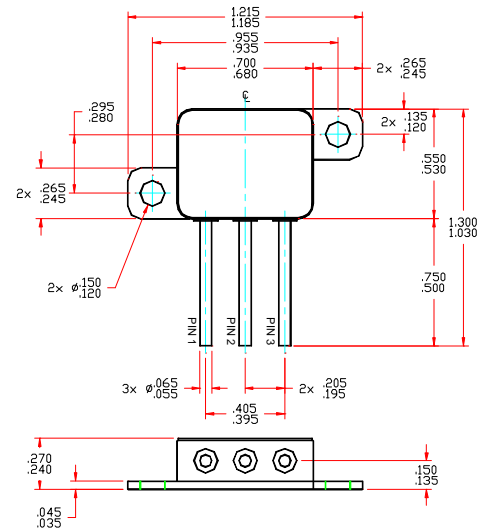
- Pin1: Cathode**
- Pin2: Anode**
- Pin3: Anode**



Note 1: Pin 2&3 connected together

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 #: RU0117B

DOC