



Solid State Devices, Inc.

14830 Valley View Blvd * La Mirada, CA 90638

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

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DESIGNER'S DATA SHEET

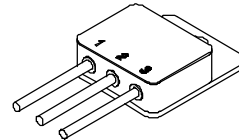
Features:

- 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.

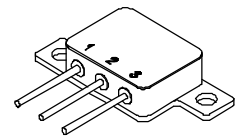
**SDR966CTN & SDR966CTP
thru
SDR969CTN & SDR969CTP**

**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 | | 800 | |
| | SDR969CTN & SDR969CTP | V_R | 900 | |
| Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$) ^{1/} | | 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 | $^\circ\text{C}$ |
| Maximum Thermal Resistance Junction to Case, Each Individual Diode Junction to Case ^{1/} | | R_{qJE} | 1.3 0.7 | $^\circ\text{C/W}$ |

Notes:

^{1/} 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 |
|---|---------------------------|----------|-----|------|-------|
| Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μs Pulse) | $I_F = 15\text{A}$ | V_{F1} | — | 1.20 | Volts |
| | $I_F = 30\text{A}$ | V_{F2} | — | 1.35 | |
| Instantaneous Forward Voltage Drop ($I_F = 15\text{A}$, 300 μs Pulse) | $T_A = 100^\circ\text{C}$ | V_{F3} | — | 1.10 | Volts |
| | $T_A = -55^\circ\text{C}$ | V_{F4} | — | 1.30 | |
| Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μs Pulse minimum) | | I_{R1} | — | 100 | mA |
| Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μs 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 |

