



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638
 Phone: (562) 404-7855 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

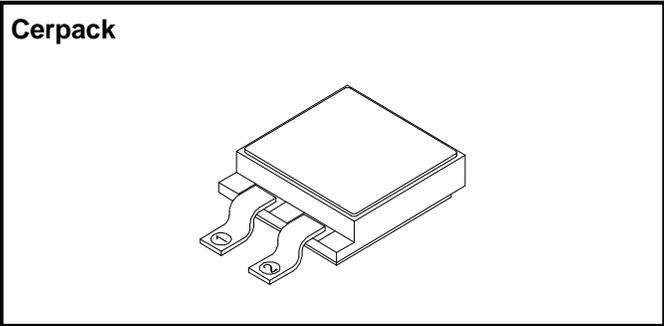
**SDR620G
 THRU
 SDR622G**

DESIGNER'S DATA SHEET

Features:

- Replaces 1N5816 Devices
- Hyper Fast Recovery: 35nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Surface Mount Power Package
- Gold Eutectic Die Attach Available
- Ultrasonic Aluminum Wire Bonds
- Low Inductance Flat Leads
- TX, TXV, and Space Level Screening Available.

**20 AMP
 100-200 Volts
 35nsec
 Hyper Fast
 Rectifier**



| Maximum Ratings | | Symbol | Value | Units |
|---|---------|------------|-------------|--------------------|
| Peak Repetitive Reverse and DC Blocking Voltage ^{1/} | SDR620G | V_{RRM} | 100 | Volts |
| | SDR621G | V_{RWM} | 150 | |
| | SDR622G | V_R | 200 | |
| Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$) ^{2/} | | I_o | 20 | Amps |
| Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$) ^{2/} | | I_{FSM} | 300 | Amps |
| Operating & Storage Temperature | | Top & Tstg | -65 to +200 | $^\circ\text{C}$ |
| Maximum Thermal Resistance Junction to Case, ^{2/} | | R_{qJL} | 1.1 | $^\circ\text{C/W}$ |

^{1/} Higher Voltage class available

^{2/} Both Anode leads tied together



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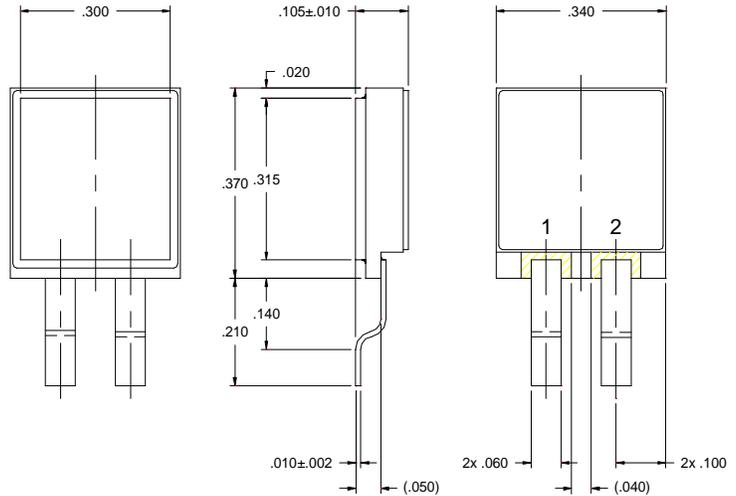
| Electrical Characteristics | Symbol | Min | Max | Units |
|---|-----------------------|-----|-------------|--------------|
| Instantaneous Forward Voltage Drop (IF=10Adc, T _A = 25°C, 300 μsec pulse) ^{1/} (IF=20Adc, T _A = 25°C, 300 μsec pulse) ^{1/} | V_{F1} | — | 1.0 1.2 | Volts |
| Instantaneous Forward Voltage Drop (IF= 10Adc, T _A = 100°C, 300 μsec pulse) ^{1/} (IF= 10Adc, T _A = -55°C, 300 μsec pulse) ^{1/} | V_{F2} | — | 0.9 1.15 | Volts |
| Reverse Leakage Current (Rated V _R , T _A = 25°C, 300 μsec pulse minimum) | I_{R1} | — | 10 | mA |
| Reverse Leakage Current (Rated V _R , T _A = 100°C, 300 μsec pulse minimum) | I_{R2} | — | 1 | mA |
| Junction Capacitance (V _R = 10 Vdc, T _A = 25°C, f = 1MHz) | C_J | — | 225 | pF |
| Reverse Recovery Time (I _F = 0.5A, I _R = 1A, I _{RR} = 0.25A, T _A = 25°C) | t_{rr} | — | 35 | nsec |

Case Outline: Cerpack

Pin 1: Anode

Pin 2: Anode

Case: Cathode



^{1/} For best results connect pin 1&2 together in operation

| | | |
|---|------------------------------|------------|
| NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release. | DATA SHEET #: RH0067B | DOC |
|---|------------------------------|------------|