



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

**SDR620-28
 THRU
 SDR622-28**

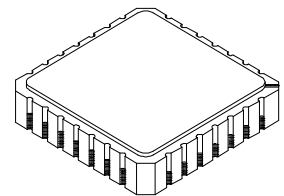
DESIGNER'S DATA SHEET

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
- TX, TXV, and Space Level Screening Available.

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

28 PIN CLCC



| Maximum Ratings | | Symbol | Value | Units |
|---|-----------|------------|-------------|--------------------|
| Peak Repetitive Reverse and DC Blocking Voltage ^{1/} | SDR620-28 | V_{RRM} | 100 | Volts |
| | SDR621-28 | V_{RWM} | 150 | |
| | SDR622-28 | V_R | 200 | |
| Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$) | | I_o | 20 | Amps |
| Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$) ^{2/} | | I_{FSM} | 100 | Amps |
| Operating & Storage Temperature | | Top & Tstg | -65 to +200 | $^\circ\text{C}$ |
| Maximum Thermal Resistance Junction to Case, ^{2/} | | R_{qJL} | 6.6 | $^\circ\text{C/W}$ |

^{1/} Higher Voltage class available
^{2/} Package Limited



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

**SDR620-28
 THRU
 SDR622-28**

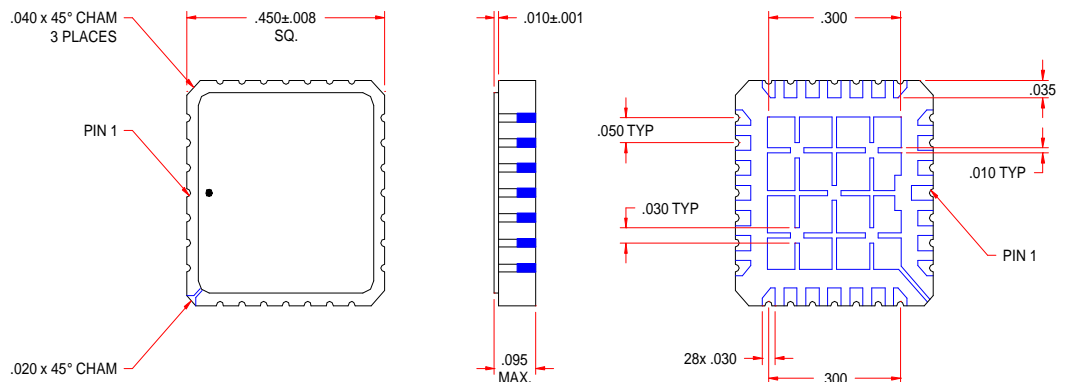
| Electrical Characteristics | Symbol | Min | Max | Units |
|---|-----------------------|-----|------------|--------------|
| Instantaneous Forward Voltage Drop (IF=10Adc, TA = 25°C, 300 µsec pulse) ^{1/} (IF=20Adc, TA = 25°C, 300 µsec pulse) ^{1/} | V_{F1} | — | 1.1 1.3 | Volts |
| Instantaneous Forward Voltage Drop (IF= 10Adc, TA = 100°C, 300 µsec pulse) ^{1/} (IF= 10Adc, TA = -55°C, 300 µsec pulse) ^{1/} | V_{F2} | — | 1.0 1.2 | Volts |
| Reverse Leakage Current (Rated V _R , TA = 25°C, 300 µsec pulse minimum) | I_{R1} | — | 10 | mA |
| Reverse Leakage Current (Rated V _R , TA = 100°C, 300 µsec pulse minimum) | I_{R2} | — | 1 | mA |
| Junction Capacitance (V _R = 10 Vdc, TA = 25°C, f = 1MHz) | C_J | — | 225 | pF |
| Reverse Recovery Time (I _F = 0.5A, I _R = 1A, I _{RR} = 0.25A, TA = 25°C) | t_{rr} | — | 35 | nsec |

CASE OUTLINE: 28 PIN LCC

Pin 1, 15-28: Anode

Pin 5-11: Cathode

Pin 2, 3, 13, 14: N/C



^{1/} For best results connect pins 1, 15-28 together and pins 5-11 together in operation.

| | | |
|--|-------------------------------------|-------------------|
| <p>NOTE: All specifications are subject to change without notification. SCDD's for these devices should be reviewed by SSDI prior to release.</p> | <p>DATA SHEET #: RH0069B</p> | <p>DOC</p> |
|--|-------------------------------------|-------------------|