



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773
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SDR620-28 THRU SDR622-28

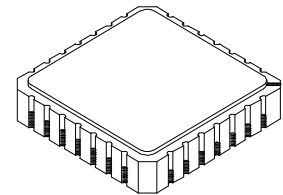
**20 AMP
100-200 Volts
35nsec
Hyper Fast
Rectifier**

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.

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/} | | $R_{\theta JL}$ | 6.6 | $^\circ\text{C/W}$ |

^{1/} Higher Voltage class available

^{2/} Package Limited

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

DATA SHEET #: RH0069B

DOC



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**SDR620-28
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 SDR622-28**

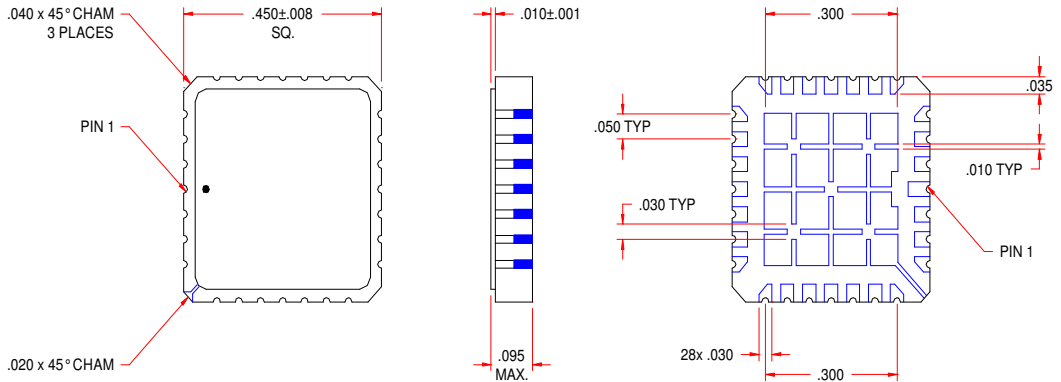
| Electrical Characteristics | Symbol | Min | Max | Units |
|---|-----------------|-----|------------|-------|
| Instantaneous Forward Voltage Drop (IF=10Adc, TA = 25°C, 300 μsec pulse) ^{1/} (IF=20Adc, TA = 25°C, 300 μsec pulse) ^{1/} | V _{F1} | — | 1.1 1.3 | Volts |
| Instantaneous Forward Voltage 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 , T _A = 25°C, 300 μsec pulse minimum) | I _{R1} | — | 10 | μA |
| 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: 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.

| | | |
|--|------------------------------|------------|
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