



# Solid State Devices, Inc.

14701 Firestone Blvd \* La Mirada, CA 90638  
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## SDR620-28 THRU SDR622-28

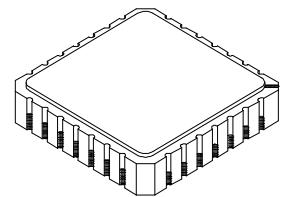
### DESIGNER'S DATA SHEET

#### 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 <sup>1/</sup>	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, $T_A = 25^\circ\text{C}$ ) <sup>2/</sup>		$I_{FSM}$	100	Amps
Operating & Storage Temperature		Top & Tstg	-65 to +200	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case, <sup>2/</sup>		$R_{qJL}$	6.6	$^\circ\text{C/W}$

<sup>1/</sup> Higher Voltage class available

<sup>2/</sup> 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  
 THRU  
 SDR622-28**

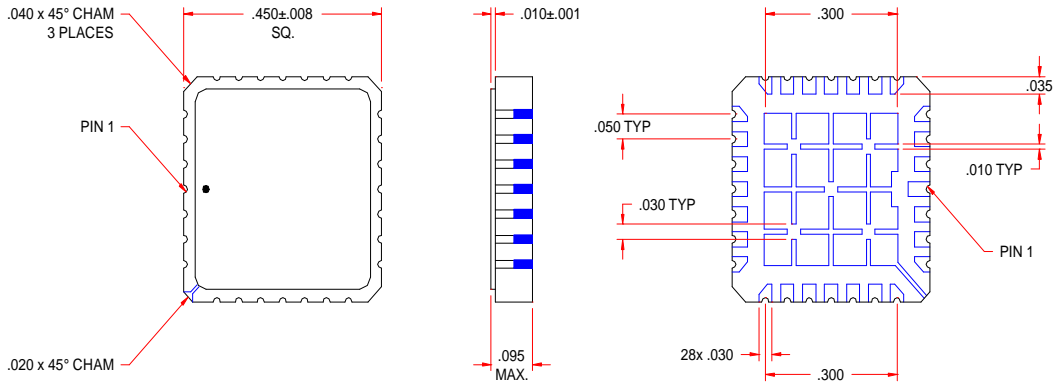
Electrical Characteristics	Symbol	Min	Max	Units
<b>Instantaneous Forward Voltage Drop</b> (IF=10Adc, T <sub>A</sub> = 25°C, 300 μsec pulse) <sup>1/</sup> (IF=20Adc, T <sub>A</sub> = 25°C, 300 μsec pulse) <sup>1/</sup>	V <sub>F1</sub>	—	1.1 1.3	Volts
<b>Instantaneous Forward Voltage Drop</b> (IF= 10Adc, T <sub>A</sub> = 100°C, 300 μsec pulse) <sup>1/</sup> (IF= 10Adc, T <sub>A</sub> = -55°C, 300 μsec pulse) <sup>1/</sup>	V <sub>F2</sub>	—	1.0 1.2	Volts
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 25°C, 300 μsec pulse minimum)	I <sub>R1</sub>	—	10	mA
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 100°C, 300 μsec pulse minimum)	I <sub>R2</sub>	—	1	mA
<b>Junction Capacitance</b> (V <sub>R</sub> = 10 Vdc, T <sub>A</sub> = 25°C, f = 1MHz)	C <sub>J</sub>	—	225	pF
<b>Reverse Recovery Time</b> (I <sub>F</sub> = 0.5A, I <sub>R</sub> = 1A, I <sub>RR</sub> = 0.25A, T <sub>A</sub> = 25°C )	t <sub>rr</sub>	—	35	nsec

**CASE OUTLINE: 28 PIN LCC**

**Pin 1, 15-28: Anode**

**Pin 5-11: Cathode**

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



<sup>1/</sup> For best results connect pins 1, 15-28 together and pins 5-11 together in operation.

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