PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada,CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

SDR620G thru SDR622G

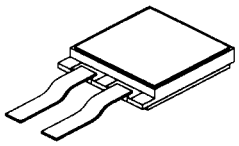
Designer's Data Sheet

20 AMP 100-200 VOLTS 35 nsec HYPER FAST RECTIFIER

FEATURES:

- Replaces 1N5816 Devices
- Hyper Fast Recovery: 35 nsec 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

CERPACK



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage, note 1 **SDR620G** **SDR621G** **SDR622G**	V_{RRM} V_{RWM} V_R	100 150 200	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C) note 2	I_O	20	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave,TA=25°C) note 2	I_{FSM}	300	**Amps**
Operating and storage temperature	**Top & Tstg**	-65 to +200	**°C**
Maximum Thermal Resistance Junction to Case, note 2	$R_{\theta JC}$	1.1	**°C/W**

Note 1 Higher voltage class available
Note 2 Both anode leads tied together

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ELECTRICAL CHARACTERISTICS

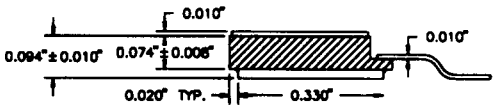
CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 10 Adc, TA=25°C, 300µs Pulse)note 1 (IF = 20 Adc, TA=25°C, 300µs Pulse)note 1	VF	0.98 1.10	Vdc
Instantaneous Forward Voltage Drop (IF = 10 Adc, TA= 100°C, 300µs Pulse)note 1 (IF = 10 Adc, TA= - 55°C, 300µs Pulse)note 1	VF	0.88 1.08	Vdc
Reverse Leakage Current (Rated VR, TA=25°C, 300µs pulse minimum)	IR	10	µA
Reverse Leakage Current (Rated VR, TA=100°C, 300µs pulse minimum)	IR	1	mA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	150	pf
Reverse Recovery Time (IF=1 A, IR=1 A, IRR= 100mA, TA=25°C)	trr	35	nsec

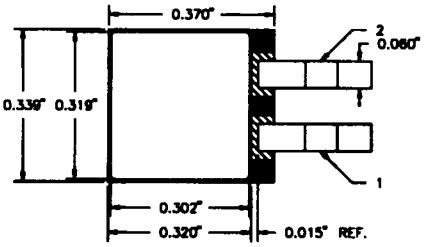
CASE OUTLINE: CERPACK

PIN 1: ANODE
PIN 2: ANODE
CASE: CATHODE

Note 1:

For best results connect pin 1 & 2 together in operation.





TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified