



Solid State Devices, Inc.

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DESIGNER'S DATA SHEET

Part Number/Ordering Information^{1/}

SDR62



Screening^{2/}

— = Not Screened

TX = TX Level

TXV = TXV Level

S = S Level

Package

G = Cerpack

Voltage

0 = 100 V

1 = 150 V

2 = 200 V

SDR620G
THRU
SDR622G

20 AMP, 100 - 200 VOLTS
Hyperfast Recovery Rectifier
35 nsec

Features:

- Replaces 1N5816 Devices
- Hyperfast 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

Maximum Ratings		Symbol	Value	Unit
Peak Repetitive Reverse and DC Blocking Voltage ^{3/}	SDR620G	V_{RRM}	100	V
	SDR621G	V_{RWM}	150	
	SDR622G	V_R	200	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$) ^{4/}		I_o	20	A
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$) ^{4/}		I_{FSM}	300	A
Operating & Storage Temperature		$T_{OP} \text{ \& } T_{STG}$	-65 to +200	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Case ^{4/}		$R_{\theta JL}$	1.1	$^\circ\text{C/W}$

NOTES: *Pulsed per MIL-STD-750.

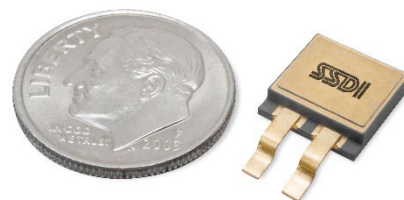
^{1/} For ordering information, price, operating curves, and availability - contact factory.

^{2/} Unless otherwise specified, all maximum ratings/electrical characteristics @ 25°C .

^{3/} Higher voltage class available.

^{4/} Both anode leads tied together.

Cerpack (G)



*Dime used for size reference

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

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SDR620G THRU SDR622G

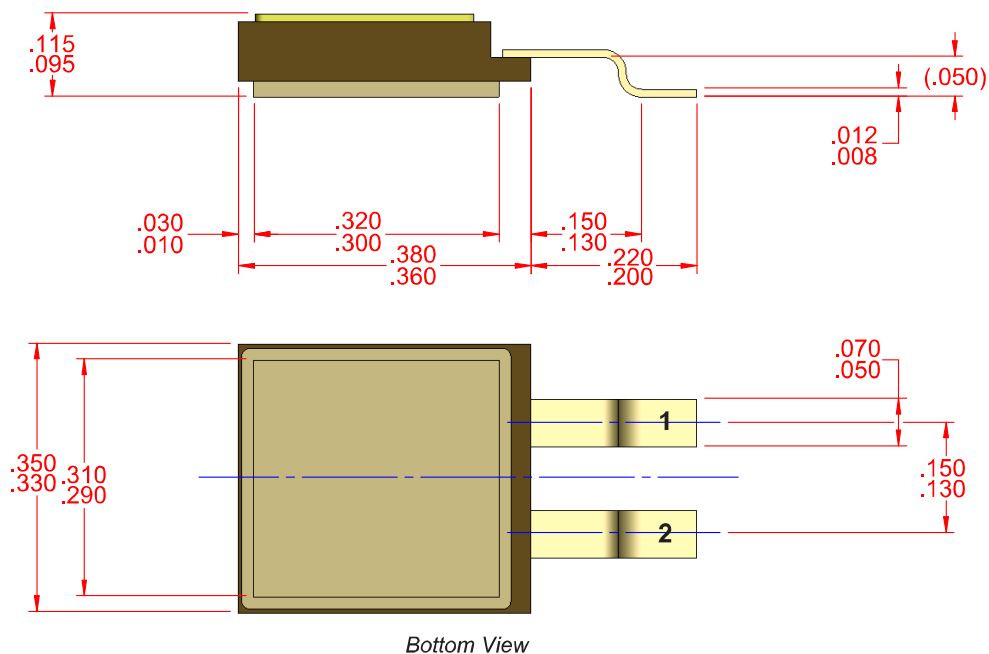
Electrical Characteristics	Symbol	Min	Max	Unit
Instantaneous Forward Voltage Drop ($I_F = 10 \text{ A}$, $T_A = 25^\circ\text{C}$, pulsed) ^{5/} ($I_F = 20 \text{ A}$, $T_A = 25^\circ\text{C}$, pulsed) ^{5/}	V_{F1}	— —	1.0 1.2	V
Instantaneous Forward Voltage Drop ($I_F = 10 \text{ A}$, $T_A = 100^\circ\text{C}$, pulsed) ^{5/} ($I_F = 10 \text{ A}$, $T_A = -55^\circ\text{C}$, pulsed) ^{5/}	V_{F2}	— —	0.9 1.15	V
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, pulsed)	I_{R1}	—	10	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, pulsed)	I_{R2}	—	1	mA
Junction Capacitance ($V_R = 10 \text{ Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1 \text{ MHz}$)	C_J	—	225	pF
Reverse Recovery Time ($I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{RR} = 0.25 \text{ A}$, $T_A = 25^\circ\text{C}$)	t_{RR}	—	35	nsec

Case Outline: Cerpack

Pin 1: Anode

Pin 2: Anode

Case: Cathode



^{5/} For best results, connect pins 1 & 2 together in operation.

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