



Solid State Devices, Inc.

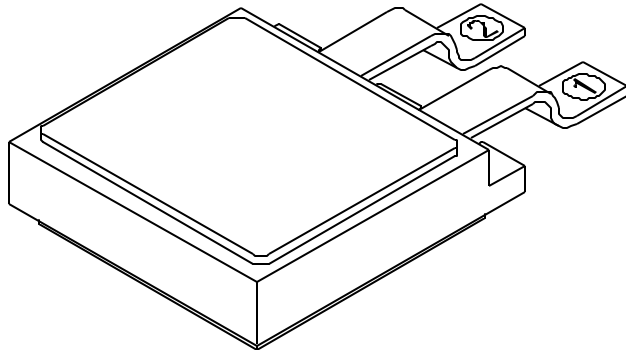
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SDR623G Thru SDR626G

20A 35nsec 300-600 V Hyper Fast Rectifier

DESIGNER'S DATA SHEET ^{1/}

CERPACK



- Features:**
- Hyper Fast Recovery: 35nsec Maximum ^{3/}
 - High Surge Rating
 - Low Reverse Leakage Current
 - Low Junction Capacitance
 - Hermetically Sealed Package
 - Gold Eutectic Die Attach
 - Ultrasonic Aluminum Wire Bonds
 - TX, TXV, and S-Level Screening Available ^{2/}

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse Voltage	SDR623G	V_{RRM} V_{RWM} V_R	300	Volts
	SDR624G		400	
	SDR625G		500	
	SDR626G		600	
Average Rectified Forward Current ^{4/} (Resistive Load, 60 Hz Sine Wave, $T_A = 25^\circ\text{C}$)		I_o	20	Amps
Peak Surge Current ^{4/} (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$)		I_{FSM}	200	Amps
Operating & Storage Temperature		T_{OP} & T_{STG}	-65 to +200	$^\circ\text{C}$
Maximum Total Thermal Resistance Junction to Case ^{4/}		R_{qJC}	1.0	$^\circ\text{C/W}$

Notes:

1/ For ordering information, Price, Operating Curves, and Availability- Contact Factory.
2/ Screened to MIL-PRF-19500.
3/ Recovery Conditions: $I_F = 0.5$ Amp, $I_R = 1.0$ Amp, rec. to .25 Amp.
4/ Both Legs Tied Together.



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**SDR623G
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Electrical Characteristics ^{1/}		Symbol	Max	Units
Instantaneous Forward Voltage Drop (I _F = 10Adc, Pulse) (I _F = 20Adc, Pulse)	T _A = 25 °C	V _{F1}	1.40	V _{DC}
	T _A = 25 °C	V _{F2}	1.60	
Instantaneous Forward Voltage Drop (I _F = 20Adc, Pulse)	T _A = -55 °C	V _{F3}	1.70	V _{DC}
Reverse Leakage Current (100% of rated V _R , Pulse)	T _A = 25 °C	I _{R1}	50	mA
	T _A = 100 °C	I _{R2}	5	mA
Reverse Recovery Time (I _F = 0.5A, I _R = 1A, I _{RR} = 0.25A, T _A = 25°C)		t _{RR}	35	nsec
Junction Capacitance (V _R = 10V _{DC} , T _A = 25°C, f = 1MHz)		C _J	150	pF

Notes: 1/ Both Legs Tied Together.

PIN ASSIGNMENT			
PACKAGE	Pin 1	Pin 2	Pin 3 (Case)
CERPACK	Anode	Anode	Cathode

