



Solid State Devices, Inc.

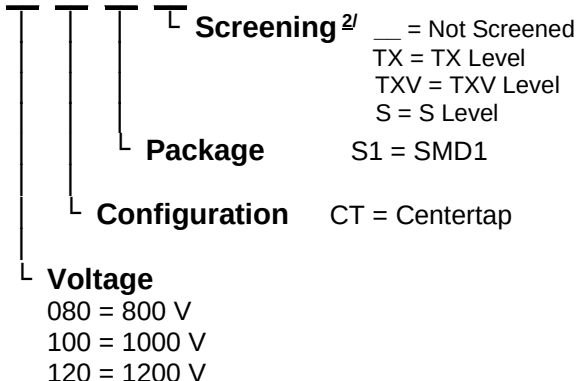
14701 Firestone Blvd * La Mirada, Ca 90638
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SSR20C120CTS1

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SSR20C



20 A / 1200 V Schottky Silicon Carbide Centertap Rectifier

FEATURES:

- 1200 Volt Silicon Carbide Schottky Rectifier
- Average Output Current 20 Amps
- No Reverse Recovery
- No Forward Recovery
- No Switching Time Change Over Temperature
- Small Package Size
- SMD1: 5.3 gr (typ)
- TX, TXV, and Space Level Screening Available. Consult Factory.

MAXIMUM RATINGS ^{3/}		Symbol	Value	Unit
Peak Repetitive and Peak Reverse Voltage	SSR20C080CT	V_{RRM} V_R	800	V
	SSR20C100CT		1000	
	SSR20C120CT		1200	
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave)	Per Leg Total	I_o	10	A
			20	
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$, per leg)		I_{FSM}	50	A
Operating & Storage Temperature		$T_{OP} \& T_{stg}$	-55 to +250	$^\circ\text{C}$
Junction Temperature		T_J	-55 to +250	$^\circ\text{C}$
Maximum Thermal Resistance (Junction to Case)		$R_{\theta JC}$	1.0	$^\circ\text{C/W}$

NOTES:

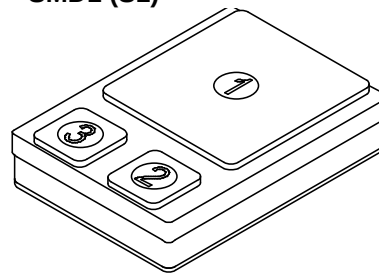
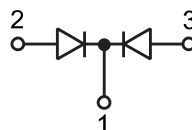
*Pulse Test: Pulse Width = 300 μsec , Duty Cycle = 2%

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

^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.

^{3/} Unless otherwise specified, all electrical characteristics @25 $^\circ\text{C}$

SMD1 (S1)



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

DATA SHEET #: SH0049D

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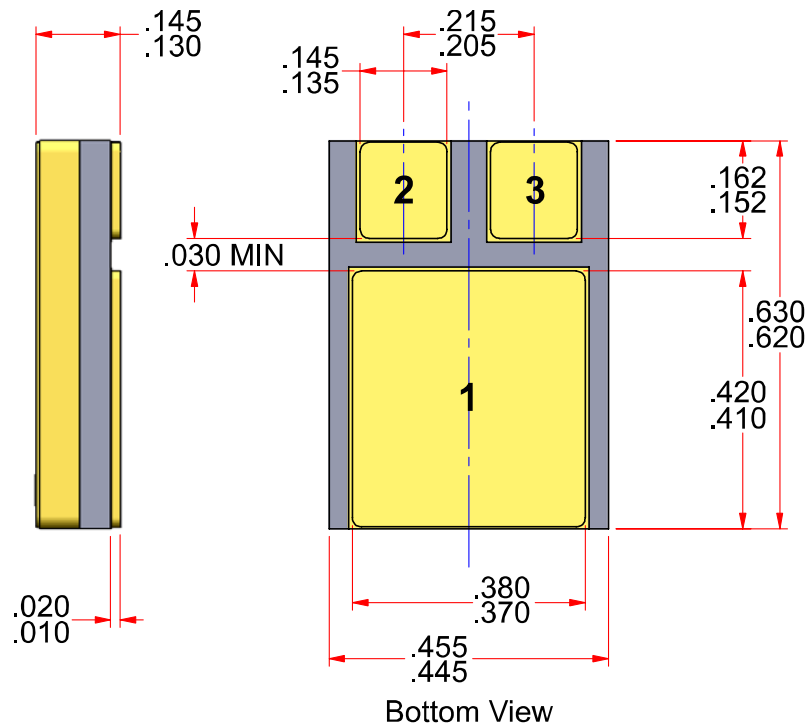
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ELECTRICAL CHARACTERISTICS (per leg) ^{3/}		Symbol	Min	Typ	Max	Unit
Instantaneous Forward Voltage Drop (T _A = 25°C, pulse)	I _F = 5.0 A	V _{F1}	—	1.25	1.4	V _{DC}
	I _F = 10 A	V _{F2}	—	1.65	1.75	
	I _F = 20 A	V _{F3}	—	2.10	2.50	
Instantaneous Forward Voltage Drop (Pulse)	T _A = -55°C, I _F = 10 A	V _{F4}	—	1.46	1.50	V _{DC}
	T _A = 150°C, I _F = 10 A	V _{F5}	—	2.60	2.80	
Reverse Leakage Current (Rated V _R , T _A = 25°C, pulse)		I _{R1}	—	40	500	μA
Reverse Leakage Current (Rated V _R , T _A = 150°C, pulse)		I _{R2}	—	200	2000	μA
Junction Capacitance (V _R = 10 V, f = 1 MHz, T _A = 25°C)		C _J	—	550	650	pF

CASE OUTLINE: SMD1 (S1)



Available Part Numbers:

SSR20C080CTS1, SSR20C100CTS1,
SSR20C120CTS1

PIN ASSIGNMENT

Package	Pin 1	Pin 2	Pin 3
SMD1 (S1)	Cathode	Anode 1	Anode 2

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