Solid State Devices, Inc.
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SSR20C120CTS1

20 A / 1200 V
Schottky Silicon Carbide
Centertap Rectifier

Designer's Data Sheet

Part Number / Ordering Information [1/]

SSR20C ___ ___ ___ ___

- **Screening** [2/]: __ = Not Screened; TX = TX Level; TXV = TXV; S = S Level
- **Package**: S1 = SMD1
- **Configuration**: CT = Centertap
- **Voltage**: 080 = 800 V; 100 = 1000 V; 120 = 1200 V

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

NOTES:

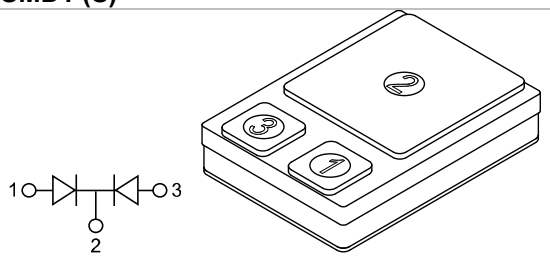
*Pulse Test: Pulse Width = 300 μsec, Duty Cycle = 2%

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 @25ºC

SMD1 (S)

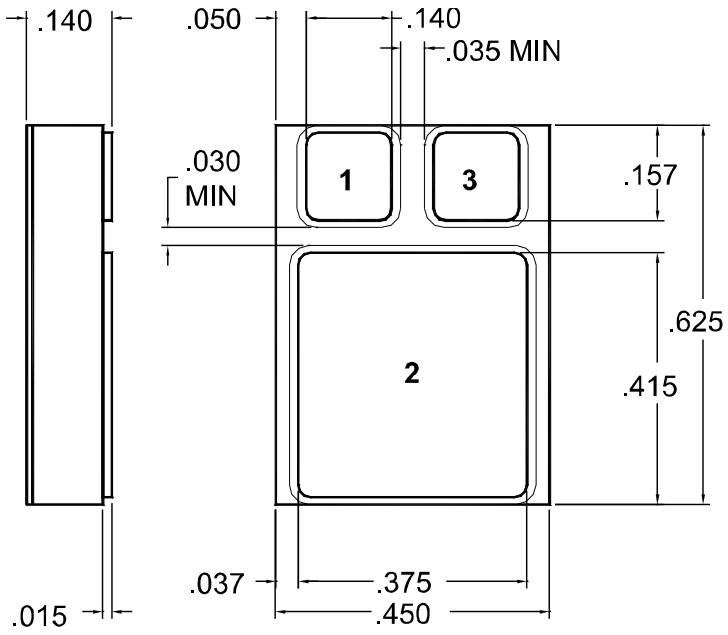


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ELECTRICAL CHARACTERISTICS (per leg)[3/]		Symbol	Min	Typ	Max	Units
Instantaneous Forward Voltage Drop (T_A=25ºC, 300 - 500 µsec pulse)	I_F = 5.0 A I_F = 10 A I_F = 20 A	V_{F1} V_{F2} V_{F3}	— — —	1.25 1.65 2.10	1.4 1.75 2.50	V_{DC}
Instantaneous Forward Voltage Drop (300 - 500 µsec pulse)	T_A= -55ºC, I_F = 10 A T_A= 150 ºC, I_F = 10 A	V_{F4} V_{F5}	— —	1.46 2.60	1.50 2.80	V_{DC}
Reverse Leakage Current (Rated V_R, T_A = 25ºC, 300 µsec pulse minimum)		I_{R1}	—	40	500	µA
Reverse Leakage Current (Rated V_R, T_A = 150ºC, 300 µsec pulse minimum)		I_{R2}	—	200	2000	µA
Junction Capacitance (V_R = 10V, f = 1MHz, 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 (Tab)**
SMD1 (S)	Anode 1	Anode 2	Cathode