



Solid State Devices, Inc.

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Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SSR20C

Screening ^{2/}

— = Not Screened
TX = TX Level
TXV = TXV Level
S = S Level

Lead Bend Options

— = Straight Leads
DB = Down Bend
UB = Up Bend

Package

M = TO-254
J = TO-257
CT = Centertap

Configuration

Voltage

080 = 800 V
100 = 1000 V
120 = 1200 V

SSR20C120CTM and SSR20C120CTJ Series

20 A / 1200 V Schottky Silicon Carbide Centertap Rectifier

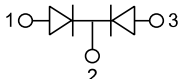
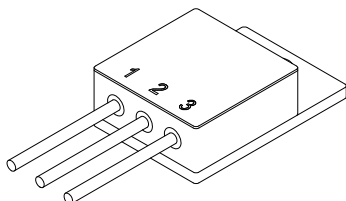
FEATURES:

- 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
- TO-257: 3.2 gr (typ); TO-254: 6.3 gr (typ)
- TX, TXV, and Space Level Screening Available. Consult Factory

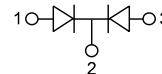
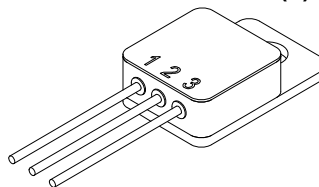
MAXIMUM RATINGS ^{3/}

		Symbol	Value	Units
Peak Repetitive and Peak Reverse Voltage	SSR20C080CT	V_{RRM} V_R	800	Volts
	SSR20C100CT		1000	
	SSR20C120CT		1200	
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave)	Per Leg	I_O	10	Amps
	Total		20	
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$, per leg)		I_{FSM}	50	Amps
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)		$R_{\theta JC}$	1.5	$^\circ\text{C/W}$

TO-254 (M)



TO-257 (J)



Notes:

- ^{1/} For ordering information, price, and availability, contact factory.
^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.
^{3/} Per leg. Unless otherwise specified, all electrical characteristics @25 $^\circ\text{C}$.

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

DATA SHEET #: SH0029E

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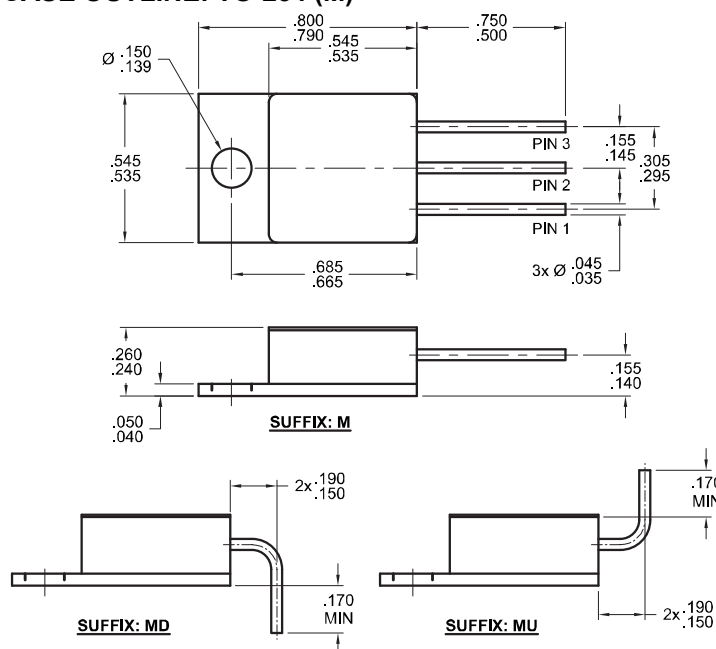
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SSR20C120CTM and SSR20C120CTJ Series

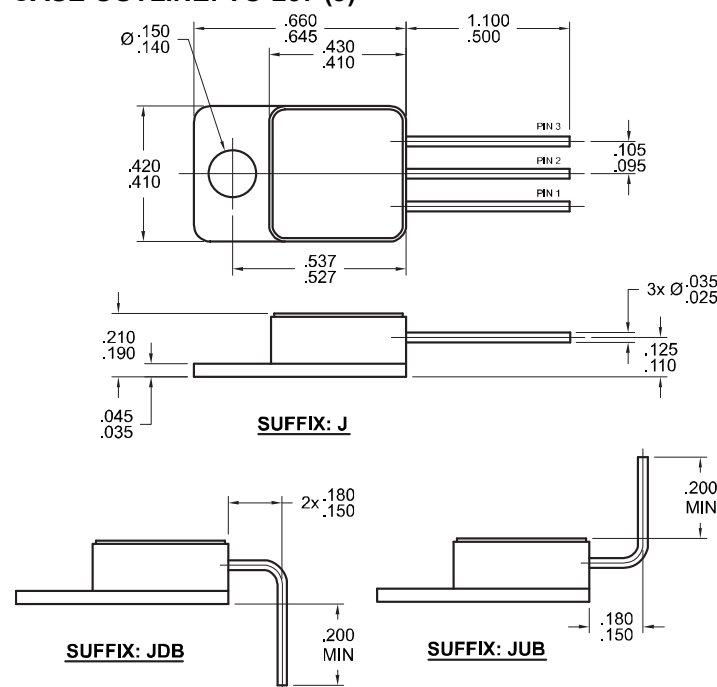
ELECTRICAL CHARACTERISTICS ^{3/}

		Symbol	Min	Typ	Max	Units
Instantaneous Forward Voltage Drop (T _A =25°C, 300 - 500 μsec pulse)	I _F = 2.0 A	V _{F1}	—	1.06	1.20	V _{DC}
	I _F = 5.0 A	V _{F2}	—	1.25	1.50	
	I _F = 10 A	V _{F3}	—	1.53	1.80	
Instantaneous Forward Voltage Drop (300 - 500 μsec pulse)	T _A = -55°C, I _F = 5 A	V _{F4}	—	1.25	1.60	V _{DC}
	T _A = 150 °C, I _F = 5 A	V _{F5}	—	1.45	1.80	
Reverse Leakage Current (Rated V _R , T _A = 25°C, 300 μsec pulse minimum)		I _{R1}	—	10	50	μA
Reverse Leakage Current (Rated V _R , T _A = 150°C, 300 μsec pulse minimum)		I _{R2}	—	15	250	μA
Junction Capacitance (V _R = 10V, f = 1MHz, T _A = 25°C)		C _J	—	375	450	pF

CASE OUTLINE: TO-254 (M)



CASE OUTLINE: TO-257 (J)



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/ Per leg. Unless otherwise specified, all electrical characteristics @25°C.

PIN ASSIGNMENT

Package	Pin 1	Pin 2	Pin 3 (Tab)
TO-254 (M)	Anode	Cathode	Anode
TO-257 (J)	Anode	Cathode	Anode

Available Part Numbers:

SSR20C080CTM, SSR20C080CTMDB, SSR20C080CTMUB
SSR20C100CTM, SSR20C100CTMDB, SSR20C100CTMUB
SSR20C120CTM, SSR20C120CTMDB, SSR20C120CTMUB
SSR20C080CTJ, SSR20C080CTJDB, SSR20C080CTJUB
SSR20C100CTJ, SSR20C100CTJDB, SSR20C100CTJUB
SSR20C120CTJ, SSR20C120CTJDB, SSR20C120CTJUB

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