



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638-5223
 Phone: (562) 404-4474 * Fax: (562) 404-1773
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SSR05C120 Series

5 A / 1200 V Schottky Silicon Carbide Rectifier

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SSR05C

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

Package ^{2/} G = Cerpack
S.5 = SMD.5
GL = Leaded Cerpack

Configuration

Voltage 100 = 1000 V
120 = 1200 V

- ### FEATURES:
- 1200 Volt Silicon Carbide Schottky Rectifier
 - Average Output Current 5 Amps
 - No Reverse Recovery
 - No Forward Recovery
 - No Switching Time Change Over Temperature
 - Small Package Size
 - TX, TXV, and Space Level Screening Available. Consult Factory.

MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive and Peak Reverse Voltage	SSR05C100 SSR05C120	V_{RRM} V_R	1000 1200	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave)		I_O	5	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ C$)		I_{FSM}	30	Amps
Operating & Storage Temperature		$T_{OP} \& T_{stg}$	-55 to +250	$^\circ C$
Junction Temperature		T_J	-55 to +250	$^\circ C$
Maximum Thermal Resistance (Junction to Case)		$R_{\theta JC}$	3.0	$^\circ C/W$

CERPACK (G) ^{2/} Drawing# 60-0149-366 	SMD .5 (S.5) ^{2/} Drawing# 60-0149-507 	LEADED CERPACK (GL) ^{2/} Drawing# 60-0149-366-1 TAB SIZE = 0.250W x 0.360L x 0.005" Thick
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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}	—	1.21	1.30	V_{DC}
	I _F = 5.0 A V_{F2}	—	1.65	1.75	
Instantaneous Forward Voltage Drop (300 - 500 μsec pulse)	T _A = -55°C, I _F = 5 A V_{F4}	—	1.46	1.50	V_{DC}
	T _A = 150 °C, I _F = 5 A V_{F5}	—	2.60	2.80	
Reverse Leakage Current (Rated V _R , T _A = 25°C, 300 μsec pulse minimum)	I_{R1}	—	20	250	μA
Reverse Leakage Current (Rated V _R , T _A = 150°C, 300 μsec pulse minimum)	I_{R2}	—	100	1000	μA
Junction Capacitance (V _R = 10V, f = 1MHz, T _A = 25°C)	C_J	—	280	320	pF

<p>NOTES: * Pulse Test: Pulse Width = 300 μsec, Duty Cycle = 2%</p> <p>1/ For Ordering Information, Price, and Availability Contact Factory.</p> <p>2/ For Package Outlines Contact Factory.</p> <p>3/ Unless Otherwise Specified, All Electrical Characteristics @25°C</p> <p>Available Part Numbers: SSR05C100G, SSR05C100GL, SSR05C100S.5 SSR05C120G, SSR05C120GL, SSR05C120S.5</p>	PIN ASSIGNMENT			
	Package	Pin 1	Pin 2	Pin 3
	Cerpack (G)	Anode	Anode	Cathode
	SMD.5 (S.5)	Cathode	Anode	Anode
	Cerpack Leaded (GL)	Anode	Anode	Cathode

