



**Solid State Devices, Inc.**

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**SSR05C120 Series**

**5 A / 1200 V  
Schottky Silicon Carbide  
Rectifier**

**Designer's Data Sheet**

**Part Number / Ordering Information** <sup>1/</sup>

**SSR05C**

└─ Screening         = Not Screened  
                  └─ TX = TX Level  
                          └─ TXV = TXV  
                                  └─ S = S Level

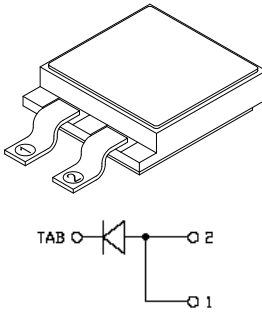
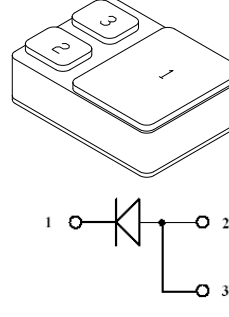
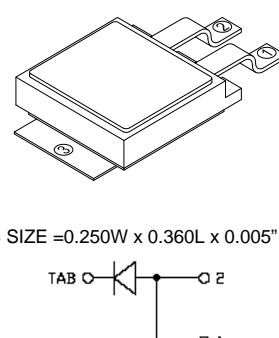
└─ Package <sup>2/</sup>    G = Cerpack  
                          └─ S.5 = SMD.5  
                                  └─ GL = Leaded Cerpack

└─ 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) <sup>2/</sup> Drawing# 60-0149-366	SMD .5 (S.5) <sup>2/</sup> Drawing# 60-0149-507	LEADED CERPACK (GL) <sup>2/</sup> Drawing# 60-0149-366-1
		 <p>TAB SIZE = 0.250W x 0.360L x 0.005" Thick</p>



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# SSR05C120 Series

ELECTRICAL CHARACTERISTICS <sup>3/</sup>		Symbol	Min	Typ	Max	Units
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> =25°C, 300 - 500 μsec pulse)	I <sub>F</sub> = 2.0 A	V <sub>F1</sub>	—	1.24	1.30	V <sub>DC</sub>
	I <sub>F</sub> = 5.0 A	V <sub>F2</sub>	—	1.65	1.80	
<b>Instantaneous Forward Voltage Drop</b> (300 - 500 μsec pulse)	T <sub>A</sub> = -55°C, I <sub>F</sub> = 5 A	V <sub>F4</sub>	—	1.48	1.52	V <sub>DC</sub>
	T <sub>A</sub> = 150 °C, I <sub>F</sub> = 5 A	V <sub>F5</sub>	—	2.80	3.00	
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 25°C, 300 μsec pulse minimum)		I <sub>R1</sub>	—	2	100	μA
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 150°C, 300 μsec pulse minimum)		I <sub>R2</sub>	—	2	250	μA
<b>Junction Capacitance</b> (V <sub>R</sub> = 10V, f = 1MHz, T <sub>A</sub> = 25°C)		C <sub>J</sub>	—	150	250	pF

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

