



Solid State Devices, Inc.

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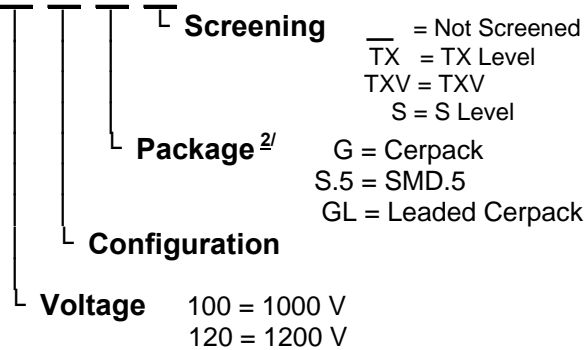
SSR05C120 Series

5 A / 1200 V Schottky Silicon Carbide Rectifier

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SSR05C



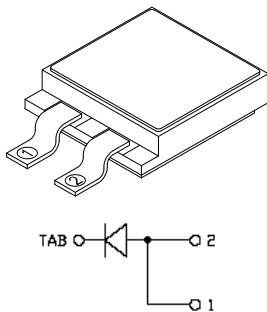
FEATURES:

- 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.

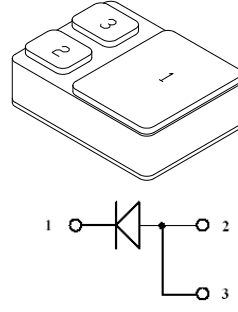
MAXIMUM RATINGS

		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, $T_A = 25^\circ\text{C}$)		I_{FSM}	30	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)		$R_{\theta JC}$	3.0	$^\circ\text{C/W}$

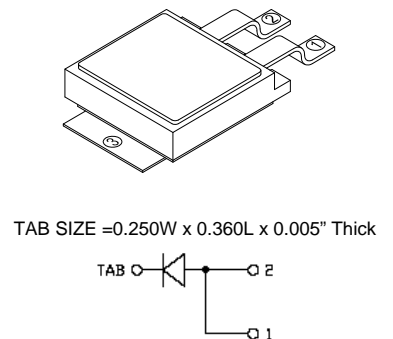
CERPACK (G) ^{2/}
 Drawing# 60-0149-366



SMD .5 (S.5) ^{2/}
 Drawing# 60-0149-507



LEADED CERPACK (GL) ^{2/}
 Drawing# 60-0149-366-1



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

DATA SHEET #: SH0030G

DOC



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SSR05C120 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}	—	1.24	1.30	V _{DC}
	I _F = 5.0 A	V _{F2}	—	1.65	1.80	
Instantaneous Forward Voltage Drop (300 - 500 μsec pulse)	T _A = -55°C, I _F = 5 A	V _{F4}	—	1.48	1.52	V _{DC}
	T _A = 150 °C, I _F = 5 A	V _{F5}	—	2.80	3.00	
Reverse Leakage Current (Rated V _R , T _A = 25°C, 300 μsec pulse minimum)		I _{R1}	—	2	100	μA
Reverse Leakage Current (Rated V _R , T _A = 150°C, 300 μsec pulse minimum)		I _{R2}	—	2	250	μA
Junction Capacitance (V _R = 10V, f = 1MHz, T _A = 25°C)		C _J	—	150	250	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

