



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 Level
 S = S Level

Package 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	Unit
Peak Repetitive and Peak Reverse Voltage	SSR05C100 SSR05C120	V_{RRM} V_R	1000 1200	V
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave)		I_o	5	A
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$)		I_{FSM}	30	A
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)
Drawing# 60-0149-366

SMD .5 (S.5)
Drawing# 60-0149-507

LEADED CERPACK (GL)
Drawing# 60-0149-366-1

TAB SIZE = 0.250W x 0.360L x 0.005" Thick



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ELECTRICAL CHARACTERISTICS ^{2/}		Symbol	Min	Typ	Max	Unit
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 _{F3}	—	1.48	1.52	V _{DC}
	T _A = 150°C, I _F = 5 A	V _{F4}	—	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 = 10 V, f = 1 MHz, T _A = 25°C)		C _J	—	150	250	pF

NOTES: * Pulse Test: Pulse Width = 300 μsec, Duty Cycle = 2%
 1/ For ordering information, price, and availability, contact factory.
 2/ Unless otherwise specified, all electrical characteristics @ 25°C.

Available Part Numbers:

SSR05C100G, SSR05C100GL, SSR05C100S.5
SSR05C120G, SSR05C120GL, SSR05C120S.5

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

Package Outline: CERPACK

TOLERANCES:
 .XX" ±.03"
 .XXX" ±.02"

Package Outline: SMD.5

Bottom View

Package Outline: LEADED CERPACK

TOLERANCES:
 .XX" ±.03"
 .XXX" ±.02"

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

DATA SHEET #: SH0030H

DOCX