



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638-5223
 Phone: (562) 404-4474 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

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}	60	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
<p>TAB \circ \triangle \circ 2 \circ 1</p>	<p>1 \circ \triangle \circ 2 \circ 3</p>	<p>TAB SIZE = 0.250W x 0.360L x 0.005" Thick</p> <p>TAB \circ \triangle \circ 2 \circ 1</p>

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

DATA SHEET #: SH0030E

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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}	—	1.21	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

NOTES: * Pulse Test: Pulse Width = 300 μsec, Duty Cycle = 2%

1/ For Ordering Information, Price, and Availability Contact Factory.

2/ For Package Outlines Contact Factory.

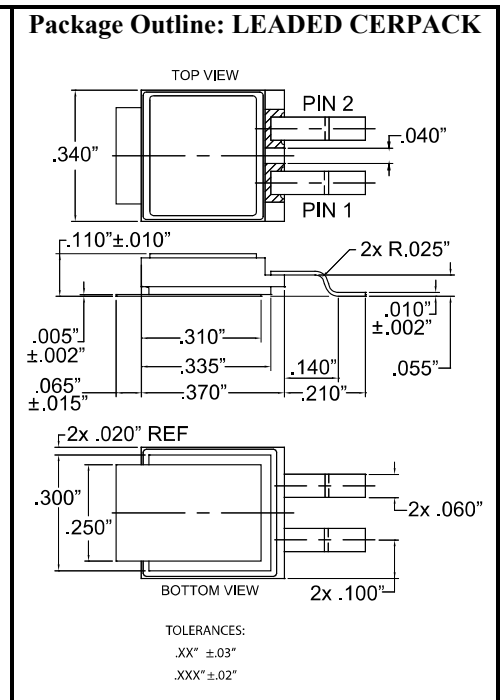
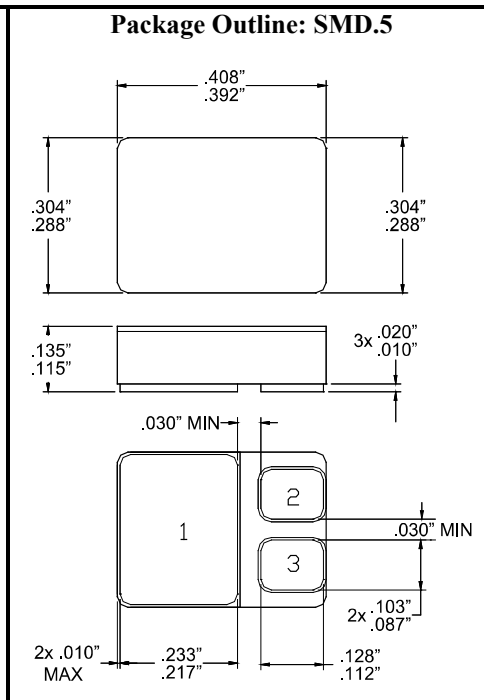
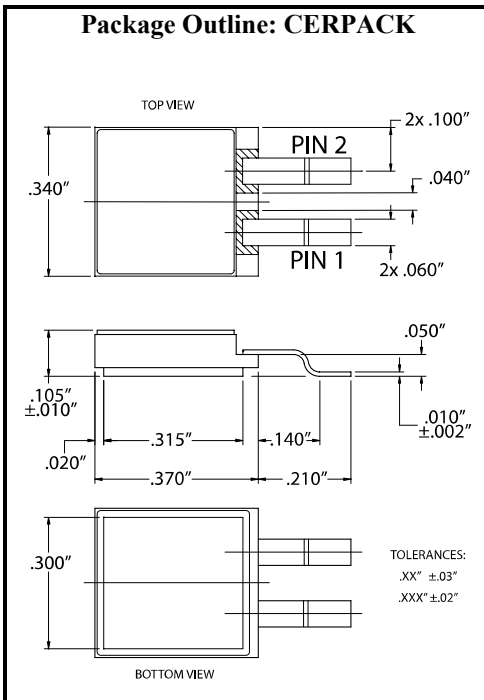
3/ Unless Otherwise Specified, All Electrical Characteristics @25°C

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



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