



# Solid State Devices, Inc.

14701 Firestone Blvd \* La Mirada, CA 90638  
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## SSR20150CTG thru SSR20200CTG and SSR20150CTS.5 thru SSR20200CTS.5

### Designer's Data Sheet

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

**SSR20**

- Screening<sup>2/</sup>
  - \_\_\_ = Not Screened
  - TX = TX Level
  - TXV = TXV Level
  - S = S Level
- Package G = Cerpack  
S.5 = SMD.5
- Configuration CT = Center Tap
- Voltage 150 = 150 V  
200 = 200 V

### 20 AMP HERMETIC SURFACE MOUNT CENTER TAP SCHOTTKY RECTIFIER 150 - 200 VOLTS

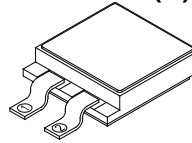
- FEATURES:**
- Extremely Small Footprint
  - Extremely Low Forward Voltage Drop
  - Low Reverse Leakage
  - Hermetically Sealed Surface Mount Package
  - Guard Ring for Overvoltage Protection
  - 175°C Operating Junction Temperature
  - TX, TXV, and S Level Screening Available - Consult Factory

MAXIMUM RATINGS <sup>3/</sup>		Symbol	Value	Unit
Peak Repetitive Reverse and DC Blocking Voltage	SSR20150CT SSR20200CT	$V_{RRM}$ $V_{RWM}$ $V_R$	150 200	V
Average Rectified Forward Current (Resistive load, 60 Hz, sine wave, $T_A = 25^\circ\text{C}$ , per leg)		$I_o$	10	A
Peak Surge Current (8.3 ms pulse, half sine wave superimposed on $I_o$ , allow junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$ ; per leg)		$I_{FSM}$	100	A
Operating & Storage Temperature		$T_{OP}$ & $T_{stg}$	-65 to +200	$^\circ\text{C}$
Maximum Thermal Resistance (Junction to Case, per leg)	Cerpack SMD.5	$R_{\theta JC}$	2	$^\circ\text{C/W}$

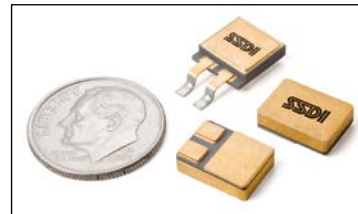
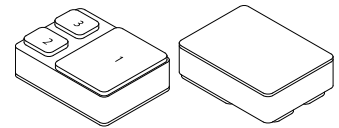
#### NOTES:

- 1/ For ordering information, price, and availability - contact factory.
- 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
- 3/ Unless otherwise specified, all electrical characteristics @ 25°C.

#### CERPACK (G)



#### SMD.5 (S.5)



(dime used for size reference)

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

**DATA SHEET #: SH0071C**

**DOCX**



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**SSR20150CTG thru SSR20200CTG  
 and  
 SSR20150CTS.5 thru SSR20200CTS.5**

<b>ELECTRICAL CHARACTERISTICS (per leg)<sup>3/</sup></b>		<b>Symbol</b>	<b>Min</b>	<b>Typ</b>	<b>Max</b>	<b>Unit</b>
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> = 25°C, 300 µsec pulse)	I <sub>F</sub> = 1 A	V <sub>F1</sub>	-	0.64	0.7	V <sub>DC</sub>
	I <sub>F</sub> = 3 A	V <sub>F2</sub>	-	0.75	-	
	I <sub>F</sub> = 5 A	V <sub>F3</sub>	-	0.81	0.9	
	I <sub>F</sub> = 10 A	V <sub>F4</sub>	-	0.91	1.0	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> = -55°C, 300 µsec pulse)	I <sub>F</sub> = 1 A	V <sub>F5</sub>	-	0.68	-	V <sub>DC</sub>
	I <sub>F</sub> = 3 A	V <sub>F6</sub>	-	0.84	-	
	I <sub>F</sub> = 5 A	V <sub>F7</sub>	-	0.91	-	
	I <sub>F</sub> = 10 A	V <sub>F8</sub>	-	1.05	-	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>A</sub> = 125°C, 300 µsec pulse)	I <sub>F</sub> = 1 A	V <sub>F9</sub>	-	0.48	0.55	V <sub>DC</sub>
	I <sub>F</sub> = 3 A	V <sub>F10</sub>	-	0.59	-	
	I <sub>F</sub> = 5 A	V <sub>F11</sub>	-	0.65	0.75	
	I <sub>F</sub> = 10 A	V <sub>F12</sub>	-	0.76	0.86	
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 25°C, 300 µsec pulse minimum)		I <sub>R1</sub>	-	0.4	10	µA
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 100°C, 300 µsec pulse minimum)		I <sub>R2</sub>	-	0.5	-	mA
<b>Reverse Leakage Current</b> (Rated V <sub>R</sub> , T <sub>A</sub> = 125°C, 300 µsec pulse minimum)		I <sub>R3</sub>	-	0.8	5	mA
<b>Junction Capacitance</b> (f = 1 MHz, T <sub>A</sub> = 25°C)	V <sub>R</sub> = 5 V	C <sub>J</sub>	-	185	-	pF
	V <sub>R</sub> = 10 V		-	135	175	

**Package Outline:  
CERPACK**

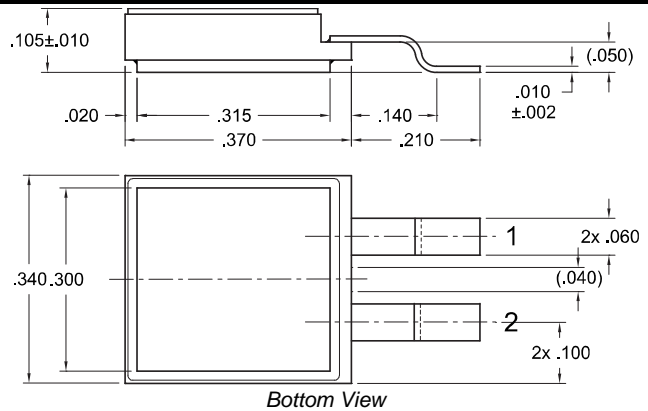
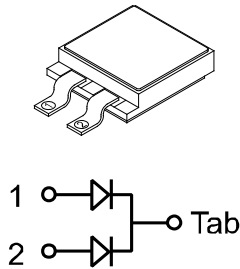
PIN OUT:

PIN 1: ANODE 1

PIN 2: ANODE 2

TAB: CATHODE

Note: For optimal performance, connect anode terminals together.



**Package Outline:  
SMD.5**

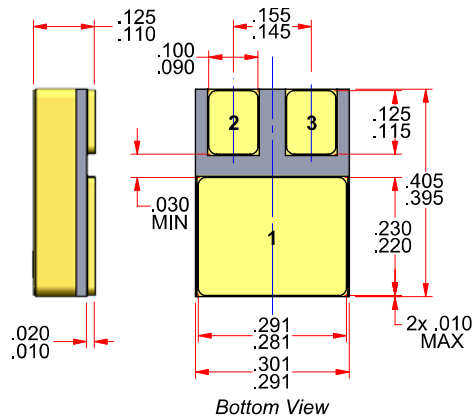
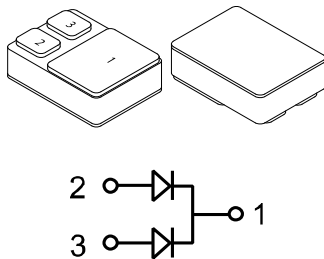
PIN OUT:

PIN 1: CATHODE

PIN 2: ANODE 1

PIN 3: ANODE 2

Note: For optimal performance, connect anode terminals together.



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