



# Solid State Devices, Inc.

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

# SSR24C60CT Series

## DESIGNER'S DATA SHEET

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

**SSR24C 60 CT S.5 TX**

#### Screening <sup>2/</sup>

— = Not Screened

TX = TX Level

TXV = TXV Level

S = S Level

#### Package

S.5 = SMD.5

G = Cerpack

#### Configuration

CT = Center Tap

#### Voltage

30 = 300 V

50 = 500 V

60 = 600 V

## 24 Amp Schottky Silicon Carbide Center Tap Rectifier 300 - 600 Volts

### Features:

- World's Smallest Hermetic SiC Center Tap Rectifier
- High Voltage, 600 V
- Very High Operating Temperature, 250°C
- No Recovery Time (tfr or trr)
- High Current Operation, 24 A
- Hermetically Sealed Packaging
- TX, TXV, and S Level Screening Available

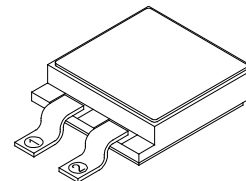
### Maximum Ratings <sup>3/</sup>

		Symbol	Value	Unit
Peak Repetitive and Peak Surge Reverse Voltage	SSR24C30	$V_{RRM}$	300	V
	SSR24C50	$V_{RSM}$	500	
	SSR24C60		600	
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave)	Per Leg	$I_o$	12	A
	Total		24	
Non Repetitive Peak Surge Current (8.3 ms Pulse, Non-Repetitive Half Sine Wave, Per Leg)		$I_{FSM}$	50	A
Power Dissipation ( $T_c = 25^\circ\text{C}$ )		$P_D$	120	W
Operating & Storage Temperature <sup>4/</sup>		$T_{OP} \ \& \ T_{STG}$	-55 to +250	°C
Maximum Thermal Resistance	Junction to Case	$R_{\theta JC}$	1.9	°C/W

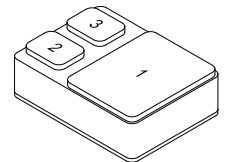
### NOTES:

- <sup>1/</sup> For ordering information, price, operating curves, and availability – contact factory.
- <sup>2/</sup> Screening based on MIL-PRF-19500. Screening flows available on request.
- <sup>3/</sup> All electrical characteristics @25°C unless otherwise specified.
- <sup>4/</sup> If high temp operation is desired (> 175°C) consult factory for soldering consideration.

Cerpack (G)



SMD .5 (S.5)



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

DATA SHEET #: RS0020K

DOCX

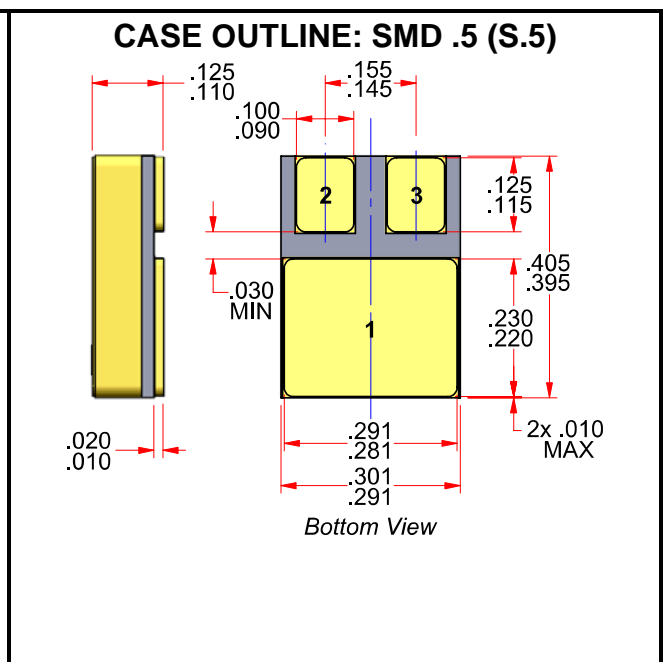
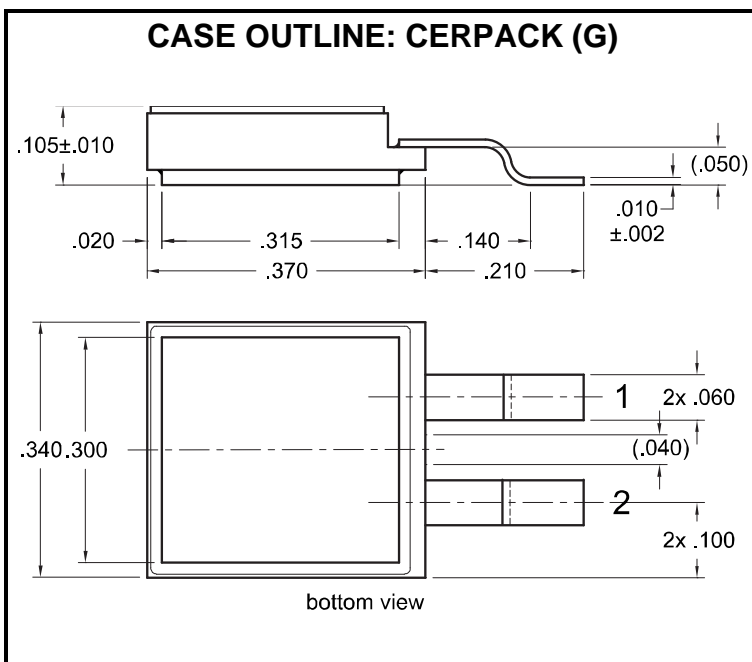


**Solid State Devices, Inc.**

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

# SSR24C60CT Series

Electrical Characteristic (Per Leg) <sup>3/</sup>	Symbol	Min	Typ	Max	Unit	
<b>Instantaneous Forward Voltage Drop</b> (T <sub>J</sub> = 25°C, 300 μsec pulse)	I <sub>F</sub> = 6 A I <sub>F</sub> = 12 A	V <sub>F1</sub>	— —	1.20 1.50	1.38 1.70	V
<b>Instantaneous Forward Voltage Drop</b> (T <sub>J</sub> = 150°C, 300 μsec pulse)	I <sub>F</sub> = 6 A I <sub>F</sub> = 12 A	V <sub>F2</sub>	— —	1.35 1.85	1.55 2.15	V
<b>Instantaneous Forward Voltage Drop</b> (T <sub>J</sub> = -55°C, 300 μsec pulse)	I <sub>F</sub> = 6 A I <sub>F</sub> = 12 A	V <sub>F3</sub>	— —	1.27 1.50	1.40 1.70	V
<b>Reverse Leakage Current</b> (V <sub>R</sub> = Rated V <sub>R</sub> , T <sub>J</sub> = 25°C, 300 μsec pulse)		I <sub>R1</sub>	—	1	200	μA
<b>Reverse Leakage Current</b> (V <sub>R</sub> = Rated V <sub>R</sub> , T <sub>J</sub> = 150°C, 300 μsec pulse)		I <sub>R2</sub>	—	5	1000	μA
<b>Junction Capacitance</b> (V <sub>R</sub> = 10 Vdc, T <sub>C</sub> = 25°C, f = 1 MHz)		C <sub>J</sub>	—	280	—	pF
<b>Total Capacitive Charge</b> (V <sub>R</sub> = 10 Vdc, I <sub>F</sub> = 12 A, di/dt ≥ 200 A/μs, T <sub>J</sub> = 25°C)		Q <sub>C</sub>	—	35	—	nC



**Available Part Numbers:**

SSR24C60CTS.5	SSR24C50CTS.5	SSR24C30CTS.5
SSR24C60CTG	SSR24C50CTG	SSR24C30CTG

**PIN ASSIGNMENT**

Package	Pin 1	Pin 2	Pin 3
SMD .5 (S.5)	Cathode	Anode	Anode
Cerpack (G)	Anode	Anode	Cathode (Tab)



Solid State Devices, Inc.

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

# SSR24C60CT Series

