



**Solid State Devices, Inc.**

14830 Valley View Blvd \* La Mirada, Ca 90638  
 Phone: (562) 404-7855 \* Fax: (562) 404-1773  
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**World's First Silicon Carbide  
 Centertap Rectifier  
 SSR04C60CT Series**

**4A / 600V  
 Schottky Silicon Carbide  
 Centertap Rectifier**

**DESIGNER'S DATA SHEET**

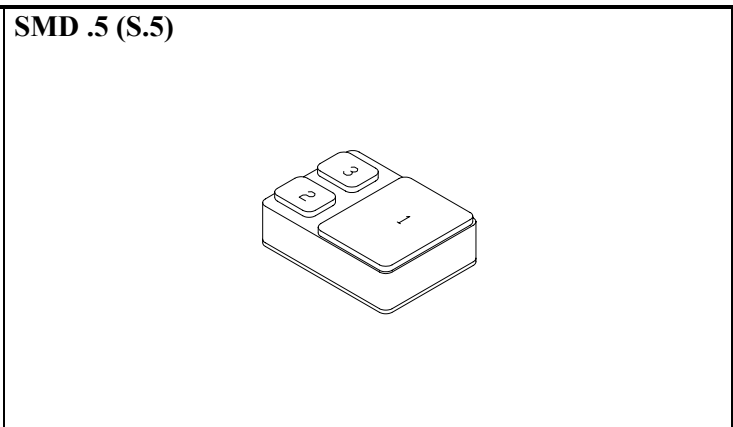
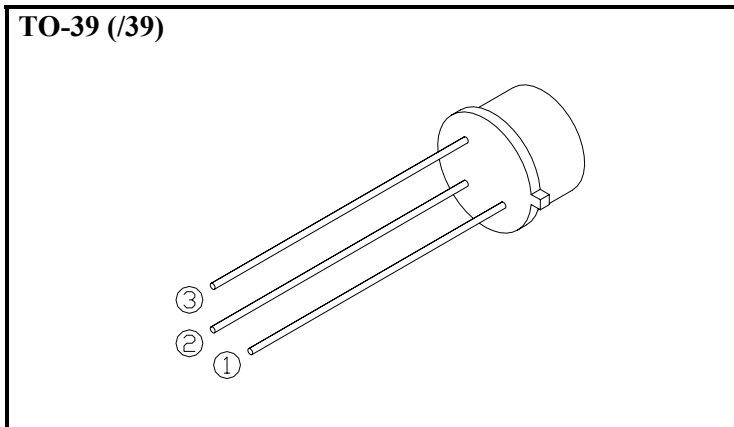
**Part Number / Ordering Information** <sup>1/</sup>

**SSR04C 60 CT S.5 TX**

- Screening      = Not Screened  
 TV = TX Level  
 TXV = TXV Level  
 S = S Level
- Package <sup>2/</sup> S.5 = SMD.5  
 /39 = Low Profile TO-39
- Configuration CT = Centertap
- Voltage 50 = 500 V  
 60 = 600 V

- Features:**
- World's First Hermetic SiC Centertap Rectifier
  - High Voltage, 600V
  - Very High Operating Temperature, 250°C
  - No Recovery Time (tfr or trr)
  - High Current Operation, 4A
  - Hermetically Sealed Packaging
  - TX, TXV, S Level screening available

Maximum Ratings		Symbol	Value	Units
<b>Peak Repetitive and Peak Surge Reverse Voltage</b>	SSR04C50	$V_{RRM}$	500	Volts
	SSR04C60	$V_{RSM}$	600	
<b>Average Rectified Forward Current</b> (Resistive Load, 60 Hz Sine Wave)	Per Leg Total	$I_o$	2	Amps
			4	
<b>Non Repetitive Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave Superimposed on $I_o$ , per leg)		$I_{FSM}$	4	Amps
<b>Power Dissipation</b>	Free Air, $T_A = 25^\circ C$	$P_D$	1.3	Watts
	Heatsunk, $T_C = 25^\circ C$		5	
<b>Operating &amp; Storage Temperature</b> <sup>4/</sup>		Top & Tstg	-55 to +250	°C
<b>Maximum Thermal Resistance</b>	Junction to Ambient	$R_{\theta JC}$	175	°C/W
	Junction to Case		45	



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



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## World's First Silicon Carbide Centertap Rectifier SSR04C60CT Series

Electrical Characteristic (Per Leg)	Symbol	Min	Typ	Max	Units
<b>Instantaneous Forward Voltage Drop</b> (If = 2A, Tj = 25°C, 300 – 500 μsec pulse)	<b>Vf1</b>	—	1.80	1.94	Volts
<b>Instantaneous Forward Voltage Drop</b> (If = 2A, Tj = 150°C, 300 – 500 μsec pulse)	<b>Vf2</b>	—	2.35	2.60	Volts
<b>Instantaneous Forward Voltage Drop</b> (If = 2A, Tj = -55°C, 300 – 500 μsec pulse)	<b>Vf3</b>	—	1.90	2.10	Volts
<b>Reverse Leakage Current</b> (Vr = Rated Vr, Tj = 25°C, 300 μsec min pulse)	<b>Ir1</b>	—	100	200	μA
<b>Reverse Leakage Current</b> (Vr = Rated Vr, Tj = 150°C, 300 μsec min pulse)	<b>Ir2</b>	—	400	1000	μA
<b>Junction Capacitance</b> (Vr=10 Vdc, Tc=25°C, f=1MHz)	<b>Cj</b>	—	45	—	pF
<b>Total Capacitive Charge</b> (VR = 400V, IF = 5A, di/dt = 200A/μs, Tj = 150°C)	<b>Qc</b>	—	5	—	nC

### NOTES:

- 1/ For Ordering Information, Price, and Availability Contact Factory.
- 2/ For Package Outlines Contact Factory.
- 3/ All Electrical Characteristics @25°C Unless Otherwise Specified.
- 4/ For Soldering Consideration Consult Factory, if High Temperature Operation is Desired.

### Available Part Numbers:

SSR04C50CTS.5    SSR04C50CT/39  
SSR04C60CTS.5    SSR04C60CT/39

### PIN ASSIGNMENT

Package	Pin 1	Pin 2	Pin 3
SMD .5 (S.5)	Cathode	Anode	Anode
TO-39 (/39)	Anode	Anode	Cathode