



Solid State Devices, Inc.

14830 Valley View Blvd * La Mirada, Ca 90638

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

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

DESIGNER'S DATA SHEET

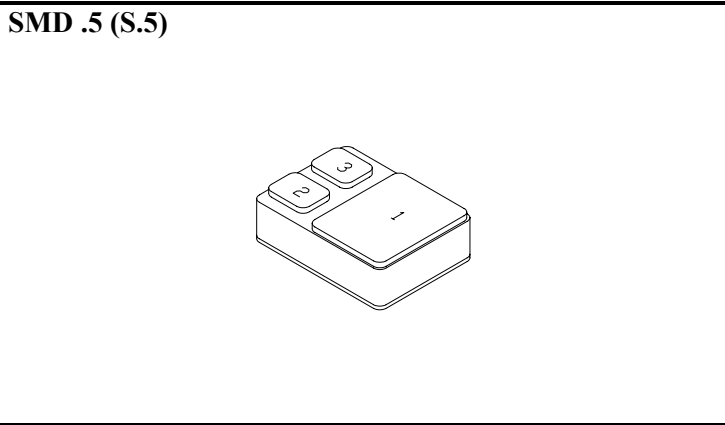
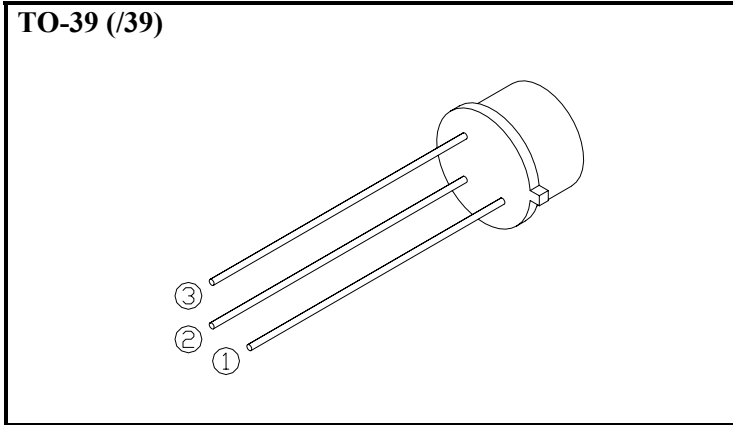
Part Number / Ordering Information ^{1/}

SSR04C 60 CT S.5 TX

- Screening = Not Screened
 TV = TX Level
 TXV = TXV Level
 S = S Level
- Package ^{2/} 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
Peak Repetitive and Peak Surge Reverse Voltage	SSR04C50	V_{RRM}	500	Volts
	SSR04C60	V_{RSM}	600	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave)	Per Leg Total	I_o	2	Amps
			4	
Non Repetitive Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_o , per leg)		I_{FSM}	4	Amps
Power Dissipation	Free Air, $T_A = 25^\circ C$	P_D	1.3	Watts
	Heatsunk, $T_C = 25^\circ C$		5	
Operating & Storage Temperature ^{4/}		Top & Tstg	-55 to +250	°C
Maximum Thermal Resistance	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.

DATA SHEET #: RS0022B

DOC



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