



SOLID STATE DEVICES, INC.

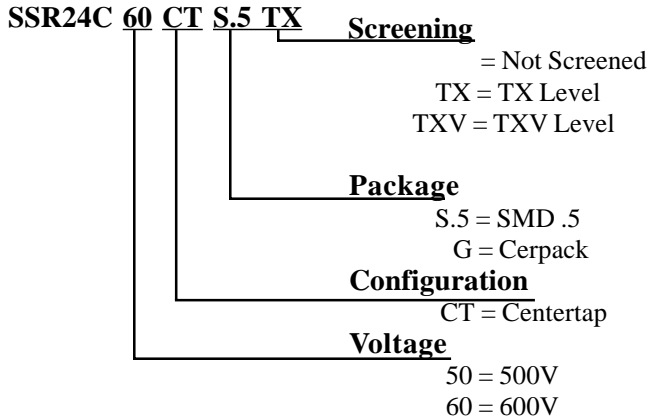
14830 Valley View Blvd * La Mirada, Ca 90638
 Phone: (562) 404-7855 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

SSR24C60CT SERIES

24 AMP 600 VOLTS SCHOTTKY SILICON CARBIDE CENTER TAP RECTIFIER

DESIGNER'S DATA SHEET

Part Number /Ordering Information ^{1/}



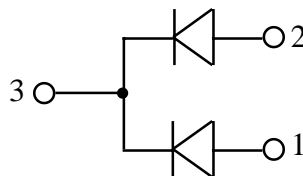
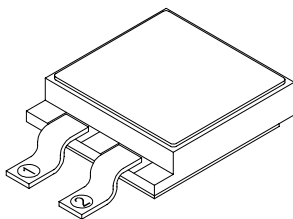
FEATURES:

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

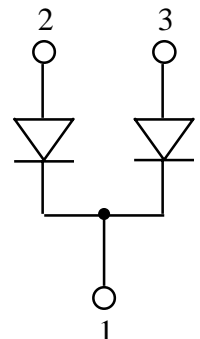
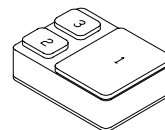
Maximum Ratings ^{3/}

		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and Peak Surge Reverse Voltage	SSR24C50	V_{RRM}	500	Volts
	SSR24C60	V_{RSM}	600	
Average Rectified Forward Current (Resistive load, 60Hz, Sine Wave)	Per Leg Total	I_o	12	Amps
			24	
Non Repetitive Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_o)	Per Leg	I_{FSM}	40	Amps
Power Dissipation ($T_c = 25^\circ C$)		P_d	120	Watts
Operating and Storage Temperature ^{4/}		$T_{OP} \& T_{stg}$	-55 TO +250°	°C
Maximum Thermal Resistance	Junction to Ambient Junction to Case	$R_{\theta JC}$	1.9	°C/W

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 #: RS0020C

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Electrical Characteristics (Per Leg)	SYMBOL	MIN	TYP	MAX	UNITS
Instantaneous Forward Voltage Drop ($T_J = 25^\circ\text{C}$, 300 μsec Pulse) $I_F = 6\text{A}$ $I_F = 12\text{A}$	V_{F1}	--	1.30 1.70	1.38 1.90	Volts
Instantaneous Forward Voltage Drop ($T_J = 150^\circ\text{C}$, 300 μsec pulse) $I_F = 6\text{A}$ $I_F = 12\text{A}$	V_{F2}	--	1.30 1.70	1.35 1.85	Volts
Instantaneous Forward Voltage Drop ($T_J = -55^\circ\text{C}$, 300 μsec pulse) $I_F = 6\text{A}$ $I_F = 12\text{A}$	V_{F3}	--	1.30 1.60	1.40 1.68	Volts
Reverse Leakage Current ($V_R = \text{Rated } V_R$, $T_J = 25^\circ\text{C}$, 300 μs pulse)	I_{R1}	--	100	200	μA
Reverse Leakage Current ($V_R = \text{Rated } V_R$, $T_J = 150^\circ\text{C}$, 300 μs pulse)	I_{R2}	--	400	1000	μA
Junction Capacitance ($V_R = 10\text{V}_{\text{dc}}$, $T_c = 25^\circ\text{C}$, $f = 1\text{Mhz}$)	C_J	--	200	-	pF
Total Capacitive Charge ($V_R = 400\text{V}_{\text{dc}}$, $I_F = 5\text{A}$, $di/dt = 200\text{A}/\mu\text{s}$, $T_J = 150^\circ\text{C}$)	Q_C	--	26	-	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/ If High Temp Operation is Desired ($>175^\circ\text{C}$) Consult Factory For Soldering Consideration.

Available Part Numbers:

SSR24C60CTS.5 SSR24C50CTS.5
SSR24C60CTG SSR24C50CTG

PIN ASSIGNMENT			
PACKAGE	Pin 1	Pin 2	Pin 3
Cerpack (G)	Anode	Anode	Cathode
SMD.5 (S.5)	Cathode	Anode	Anode