



Solid State Devices, Inc.

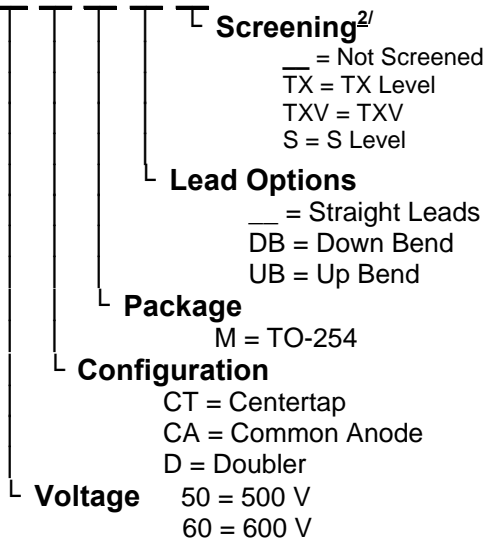
14701 Firestone Blvd * La Mirada, CA 90638-5223
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SSR25C60 Series

Designer's Data Sheet

Part Number / Ordering Information ^{1/}

SSR25C



**25 Amp
SCHOTTKY SILICON CARBIDE
CENTERTAP/DOUBLER RECTIFIER
500 - 600 Volts**

FEATURES:

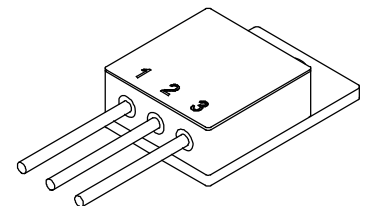
- High Voltage: 600V
- Very High Operating Temperature, 250°C
- No Recovery Time (tfr or trr)
- High Current Operation: 25A
- Hermetically Sealed, Isolated Power Package
- TX, TXV, and Space Level Screening Available - Consult Factory
- Lead Forming Available – Consult Factory
- Higher Currents and Higher Voltages Available – Consult Factory

MAXIMUM RATINGS ^{3/}		Symbol	Value	Units
Peak Repetitive Reverse and Peak Surge Reverse Voltage	SSR25C50 SSR25C60	V_{RRM} V_{RSM}	500 600	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave)	Per Leg Total	I_o	12.5 25	Amps
Non Repetitive Peak Surge Current (8.3 ms Pulse, Half Sine Wave)	Per Leg	I_{FSM}	80	Amps
Power Dissipation ($T_c = 25^\circ C$)		P_D	60	Watts
Operating & Storage Temperature ^{4/}		T_{OP} & T_{stg}	-55 to +250	°C
Maximum Thermal Resistance ^{3/}	Junction to Ambient Junction to Case	$R_{\theta JC}$	2.0	°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, per leg
- 4/ If High temp operation is desired (>175°C), consult factory for soldering consideration.

TO-254 (M)



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

DATA SHEET #: RC0165B

DOC



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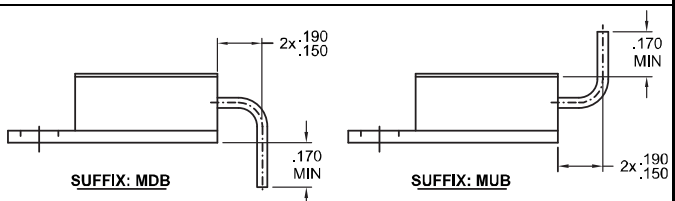
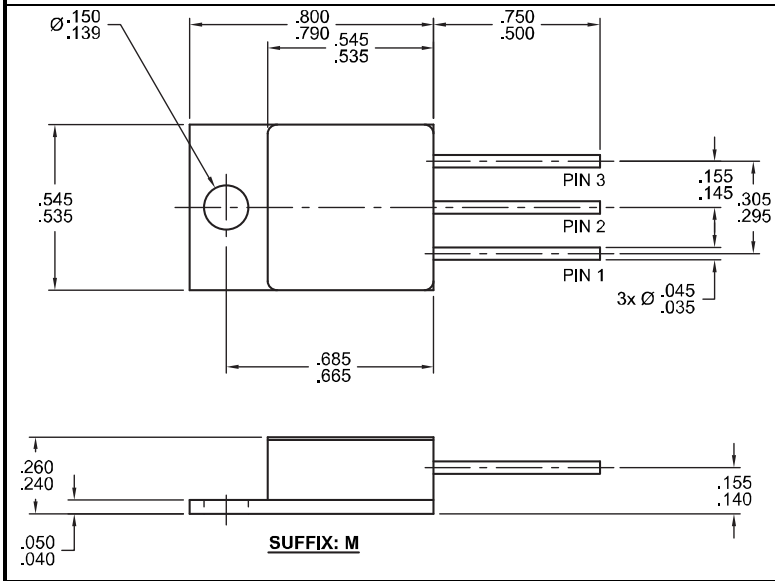
SSR25C60 Series

ELECTRICAL CHARACTERISTICS ^{3/}		Symbol	Min	Typ	Max	Units
Instantaneous Forward Voltage Drop (T _J =25°C, 300μsec pulse)	I _F = 10 A	V _{F1}	—	1.5	1.8	Volts
	I _F = 20 A			2.0	2.3	
Instantaneous Forward Voltage Drop (T _J =100°C, 300μsec pulse)	I _F = 10 A	V _{F2}	—	1.65	-	Volts
	I _F = 20 A			2.4	-	
Instantaneous Forward Voltage Drop (T _J =150°C, 300μsec pulse)	I _F = 10 A	V _{F3}	—	1.8	2.1	Volts
	I _F = 20 A			2.8	3.1	
Instantaneous Forward Voltage Drop (T _J =-55°C, 300μsec pulse)	I _F = 10 A	V _{F4}	—	1.5	1.8	Volts
	I _F = 20 A			1.95	2.3	
Reverse Leakage Current (V _R = Rated V _R , T _J = 25°C, 300 μsec pulse)		I _{R1}	—	0.5	50	μA
Reverse Leakage Current (V _R = Rated V _R , T _J = 100°C, 300 μsec pulse)		I _{R2}	—	1	-	μA
Reverse Leakage Current (V _R = Rated V _R , T _J = 150°C, 300 μsec pulse)		I _{R3}	—	7	500	μA
Junction Capacitance (f = 1MHz, T _C = 25°C)	V _R = 10V _{dc}	C _J	—	300	—	pF
	V _R = 200V _{dc}			65		
	V _R = 400V _{dc}			60		
Total Capacitive Charge (V _R = 600V _{dc} , I _F =12.5A, di/dt=500A/μs, T _J =25 °C)		Q _C	—	35	—	nC

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- 4/ If High temp operation is desired (>175°C), consult factory for soldering consideration.

Available Part Numbers: SSR25C50CTM, SSR25C50CTMDB, SSR25C50CTMUB, SSR25C60CTM, SSR25C60CTMDB, SSR25C60CTMUB, SSR25C50CAM, SSR25C50CAMDB, SSR25C50CAMUB, SSR25C60CAM, SSR25C60CAMDB, SSR25C60CAMUB, SSR25C50DM, SSR25C50DMDB, SSR25C50DMUB, SSR25C60DM, SSR25C60DMDB, SSR25C60DMUB



PIN ASSIGNMENT			
Package	Pin 1	Pin 2	Pin 3
CT	Anode	Cathode	Anode
CA	Cathode	Anode	Cathode
D	Cathode	Anode/ Cathode	Anode