



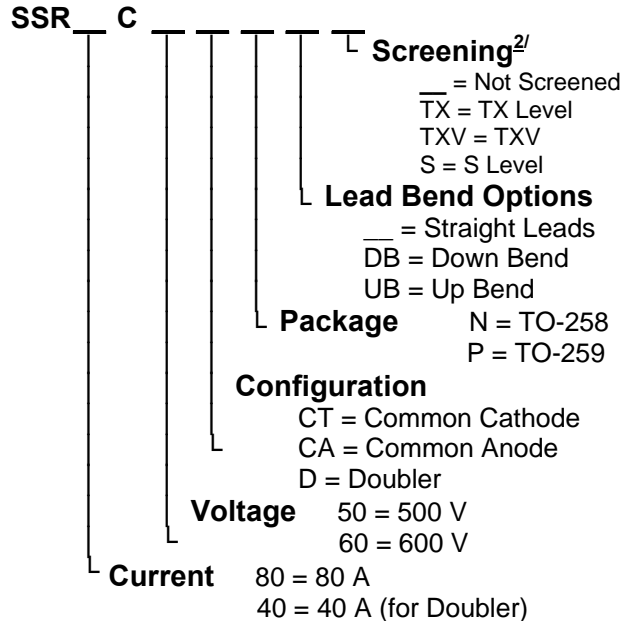
Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638-5223
 Phone: (562) 404-4474 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

**SSR80C60CT and
SSR40C60D Series**

Designer's Data Sheet

Part Number / Ordering Information ^{1/}



**80 AMP
SCHOTTKY SILICON CARBIDE
CENTERTAP RECTIFIER
500 - 600 Volts**

FEATURES:

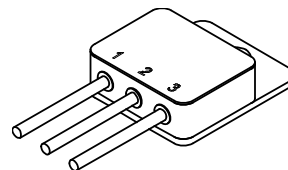
- High Voltage: 600V
- Very High Operating Temperature, 200°C
- No Recovery Time (tfr or trr)
- High Current Operation: 80A
- Hermetically Sealed, Isolated Power Package
- TX, TXV, and Space Level Screening Available
- Consult Factory

MAXIMUM RATINGS^{3/}		Symbol	Value	Units
Peak Repetitive Reverse and Peak Surge Reverse Voltage	SSR80C50CT / SSR40C50D	V_{RRM}	500	Volts
	SSR80C60CT / SSR40C60D	V_{RSM}	600	
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave)	Per Leg Total SSR40C_0D	I_o	40	Amps
			80	
			40	
Non Repetitive Peak Surge Current (8.3 ms Pulse, Half Sine Wave)	Per Leg	I_{FSM}	100	Amps
Power Dissipation (T _c = 25°C)		P_D	120	Watts
Operating & Storage Temperature^{4/}		T_{OP} & T_{stg}	-55 to +200	°C
Maximum Thermal Resistance	Junction to Case, Per Leg	R_{θJC}	1.5 (1.1 typ)	°C/W

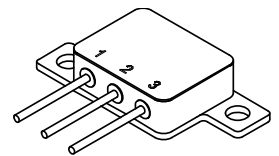
Notes:

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

TO-258 (N)



TO-259 (P)



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

DATA SHEET #: SH0082A

DOC



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638-5223

Phone: (562) 404-4474 * Fax: (562) 404-1773

ssdi@ssdi-power.com * www.ssdi-power.com

SSR80C60CT and SSR40C60D Series

ELECTRICAL CHARACTERISTICS ^{3/}		Symbol	Min	Typ	Max	Units
Instantaneous Forward Voltage Drop (T _J =25°C, 300μsec pulse)	I _F = 4 A	V_{F1}	-	1.055	-	Volts
	I _F = 15 A		-	1.36	1.45	
	I _F = 25 A		-	1.63	-	
	I _F = 40 A		-	2.03	2.20	
Instantaneous Forward Voltage Drop (T _J =100°C, 300μsec pulse)	I _F = 4 A	V_{F2}	-	1.016	-	Volts
	I _F = 15 A		-	1.27	-	
	I _F = 25 A		-	1.85	-	
	I _F = 40 A		-	2.47	-	
Instantaneous Forward Voltage Drop (T _J =150°C, 300μsec pulse)	I _F = 4 A	V_{F3}	-	1.00	-	Volts
	I _F = 15 A		-	1.60	1.75	
	I _F = 25 A		-	2.10	-	
	I _F = 40 A		-	2.95	3.20	
Instantaneous Forward Voltage Drop (T _J =-55°C, 300μsec pulse)	I _F = 4 A	V_{F4}	-	1.10	-	Volts
	I _F = 15 A		-	1.33	1.43	
	I _F = 25 A		-	1.52	-	
	I _F = 40 A		-	1.80	2.10	
Reverse Leakage Current (V _R = Rated V _R , T _J = 25°C, 300 μsec pulse)		I_{R1}	-	10	250	μA
Reverse Leakage Current (V _R = Rated V _R , T _J = 125°C, 300 μsec pulse)		I_{R2}	-	15	500	μA
Reverse Leakage Current (V _R = Rated V _R , T _J = 150°C, 300 μsec pulse)		I_{R3}	-	20	-	μA
Junction Capacitance (V _R = 10V _{dc} , f = 1MHz, T _C = 25°C)		C_J	-	440	-	pF

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

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

DATA SHEET #: SH0082A

DOC

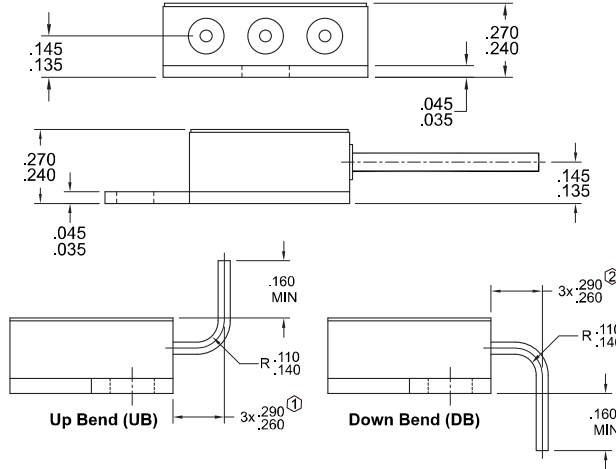
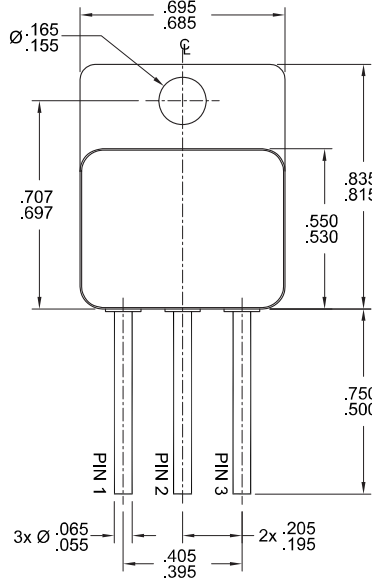


Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, CA 90638-5223
 Phone: (562) 404-4474 * Fax: (562) 404-1773
 ssdi@ssdi-power.com * www.ssdi-power.com

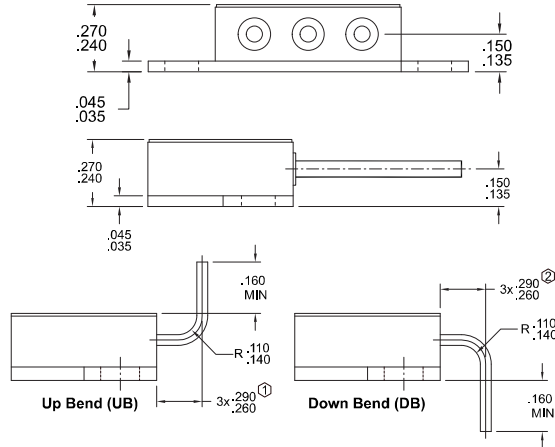
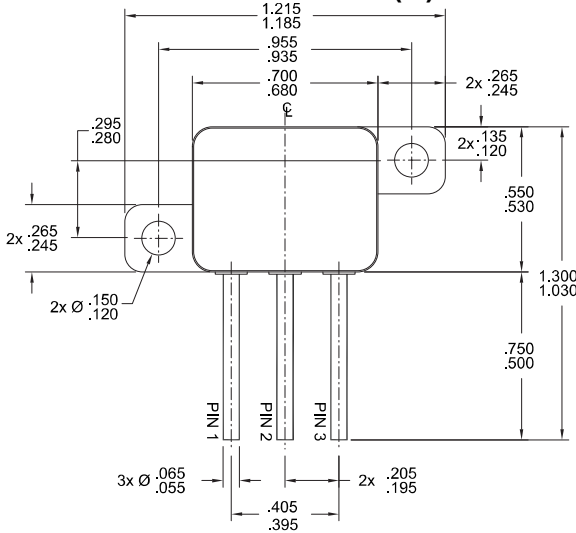
SSR80C60 Series

CASE OUTLINE: TO-258 (N)



- ① DIMENSION SHALL BE MEASURED AT .225" FROM THE BOTTOM OF THE BASEPLATE
- ② DIMENSION SHALL BE MEASURED AT THE SITTING PLANE

CASE OUTLINE: TO-259 (N)



- ① DIMENSION SHALL BE MEASURED AT .225" FROM THE BOTTOM OF THE BASEPLATE
- ② DIMENSION SHALL BE MEASURED AT THE SITTING PLANE

Available Part Numbers:

SSR80C50CTN, SSR80C50CTNDB, SSR80C50CTNUB
 SSR80C50CTP, SSR80C50CTPDB, SSR80C50CTPUB
 SSR80C50CAN, SSR80C50CANDB, SSR80C50CANUB
 SSR80C50CAP, SSR80C50CAPDB, SSR80C50CAPUB
 SSR40C50DN, SSR40C50DNDB, SSR40C50DNUB
 SSR40C50DP, SSR40C50DPDB, SSR40C50DPUB
 SSR80C60CTN, SSR80C60CTNDB, SSR80C60CTNUB
 SSR80C60CTP, SSR80C60CTPDB, SSR80C60CTPUB
 SSR80C60CAN, SSR80C60CANDB, SSR80C60CANUB
 SSR80C60CAP, SSR80C60CAPDB, SSR80C60CAPUB
 SSR40C60DN, SSR40C60DNDB, SSR40C60DNUB
 SSR40C60DP, SSR40C60DPDB, SSR40C60DPUB

PIN ASSIGNMENT

Configuration	Pin 1	Pin 2	Pin 3
Common Cathode	Anode	Cathode	Anode
Common Anode	Cathode	Anode	Cathode
Doubler	Cathode	Common	Anode

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

DATA SHEET #: SH0082A

DOC