Solid State Devices, Inc.
14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
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SDR60U080CT thru SDR60U120CT Series

DESIGNER'S DATA SHEET

Part Number / Ordering Information [1/]

SDR60 ___ ___ ___ ___ ___

Screening [2/]
__ = Not Screened
TX = TX Level
TXV = TXV Level
S = S Level

Package Type
N = TO-258
P = TO-259

Configuration
CT = Common Cathode
CA = Common Anode
D = Doubler
DR = Doubler Reverse

Voltage/Family
080 = 800V
090 = 900V
100 = 1000V
110 = 1100V
120 = 1200V

Recovery Time
U = Ultra Fast

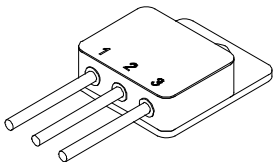
60 AMP
ULTRA FAST LOW VF
CENTERTAP RECTIFIER
800 -1200 Volts
55 nsec

Features:
- Ultra Fast Recovery: 40 nsec typical
- High Surge Rating
- Low Reverse Leakage Current
- Low Forward Voltage Drop
- Low Junction Capacitance
- Hermetically Sealed Package
- Gold Eutectic Die Attach available
- Ultrasonic Aluminum Wire Bonds
- Ceramic Seals for improved hermeticity available
- Available in Centertap and Doubler versions
- TX, TXV, Space Level Screening Available Consult Factory.

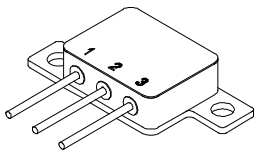
Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	**SDR60U080**	V_{RRM}	800	**Volts**
	SDR60U090		900	
	SDR60U100	V_{RWM}	1000	
	SDR60U110		1100	
	SDR60U120	V_R	1200	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T_A = 25ºC)[3/4/]		**Io**	60	**Amps**
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, Allow Junction to Reach Equilibrium Between Pulses, T_A = 25ºC)[3/]		I_{FSM}	400	**Amps**
Operating & Storage Temperature		**Top & Tstg**	-65 to +200	**ºC**
Maximum Thermal Resistance Junction to Case, each individual diode Junction to Case[3/]		$R_{\theta JE}$	1.0 0.75	**ºC/W**

1/ For ordering information, price, operating curves, and availability - Contact factory.
2/ Screening based on MIL-PRF-19500. Screening flows available on request.
3/ Both legs tied together.
4/ Package limited.

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 #: RC0145B**	**DOC**

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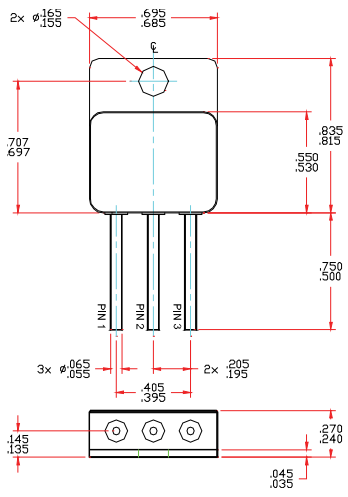
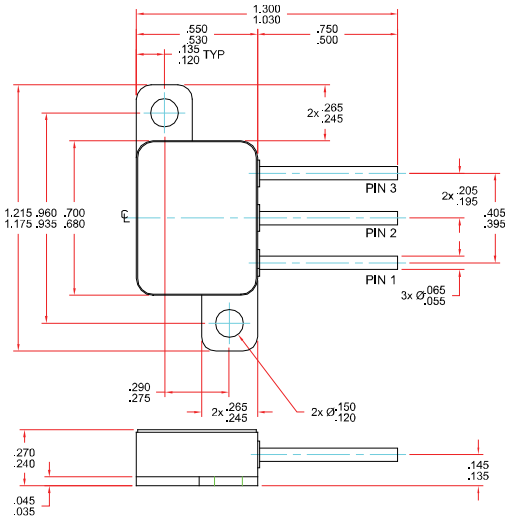
SDR60F080CT thru SDR60U120CT Series

Electrical Characteristics (per leg)		Symbol	Typ	Max	Units
Instantaneous Forward Voltage Drop (T_A = 25ºC, 300 µsec pulse)	I_F = 10Adc I_F = 20Adc I_F = 50Adc I_F = 100Adc	V_{F1}	1.65 1.75 1.90 2.10	1.80 1.90 2.15 2.50	Volts
Instantaneous Forward Voltage Drop (T_A = -55ºC, 300 µsec pulse)	I_F = 10Adc I_F = 20Adc I_F = 50Adc I_F = 100Adc	V_{F2}	1.75 1.80 1.95 2.10	— 1.95 2.25 —	Volts
Instantaneous Forward Voltage Drop (T_A = 125ºC, 300 µsec pulse)	I_F = 10Adc I_F = 20Adc I_F = 50Adc I_F = 100Adc	V_{F3}	1.75 1.30 1.65 1.95	— 1.5 1.95 —	Volts
Reverse Leakage Current (Rated V_R, T_A = 25ºC, 300 µsec pulse minimum)		I_{R1}	50	250	µA
Reverse Leakage Current (Rated V_R, T_A = 100ºC, 300 µsec pulse minimum)		I_{R2}	3	—	mA
Reverse Leakage Current (Rated V_R, T_A = 125ºC, 300 µsec pulse minimum)		I_{R3}	10	25	mA
Reverse Leakage Current (Rated V_R, T_A = 150ºC, 300 µsec pulse minimum)		I_{R4}	25	—	mA
Junction Capacitance (V_R = 5 Vdc, T_A = 25ºC, f = 1MHz) (V_R = 10 Vdc, T_A = 25ºC, f = 1MHz)		C_J	100 85	— 150	pF
Reverse Recovery Time (I_F = 500 mA, I_R = 1A, I_{RR} = 0.25A)	T_A = 25ºC T_A = 100ºC	t_{rr}	40 120	55 —	nsec

Case Outline: TO-258



Case Outline: TO-259



Note 1: Pin 2&3 connected together

PIN ASSIGNMENT				
Code	**Function**	**Pin 1**	**Pin 2**	**Pin 3**
CT	**Common Cathode**	**Anode**	**Cathode**	**Anode**
CA	**Common Anode**	**Cathode**	**Anode**	**Cathode**
D	**Doubler**	**Cathode**	**Anode / Cathode**	**Anode**
DR	**Doubler Reverse**	**Anode**	**Cathode / Anode**	**Cathode**

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