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

SDR620CT Series

DESIGNER'S DATA SHEET

40A 35nsec 100 to 200 V Hyper Fast Centertap Rectifier

Part Number / Ordering Information [1/]

SDR62 0 S1 TX

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

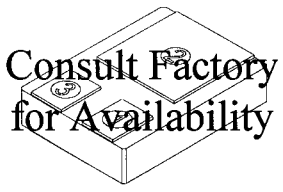
Package: [3/]
- = LCC3
- S1 = SMD1
- E = Milpack 1

Voltage:
- 0 = 200V
- 1 = 150 V
- 2 = 200 V

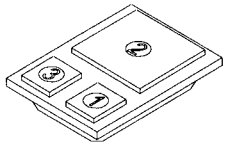
Features:
- **Hyper Fast Recovery: 35nsec Maximum**
- **High Surge Rating**
- **Low Reverse Leakage Current**
- **Low Junction Capacitance**
- **Hermetically Sealed Package**
- **Eutectic Die Attach**
- **TX, TXV and S Level Screening Available**
- **Higher voltages available**

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	**SDR620CT** **SDR621CT** **SDR622CT**	V_{RRM} V_{RSM} V_R	100 150 200	Volts
Average Rectified Forward Current (Resistive Load, 60 hz Sine Wave, T_A = 25 °C)	Total Per Leg	Io	40 20	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T_A = 25 °C)	Total [4/] Per Leg	I_{FSM}	600 300	Amps
Operating & Storage Temperature		T_{OP} & T_{STG}	-65 to +200	°C
Maximum Total Thermal Resistance Junction to Case	**LCC3** **SMD 1 & Milpack**	$R_{\theta JC}$	1.4 0.6	°C/W

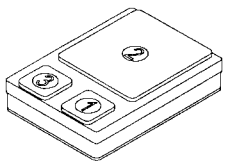
LCC3( )



Milpack (E)



SMD 1 (S1)



NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.	DATA SHEET #: RH0065 B	DOC

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SDR620CT Series

Electrical Characteristic [5/]		Symbol	Min	Max	Units
Instantaneous Forward Voltage Drop (T_A = 25°C, 300 – 500usec Pulse)	I_F = 10A I_F = 20A	V_{F1} V_{F2}	— —	0.94 1.02	V_{DC}
Instantaneous Forward Voltage Drop (I_F = 10A, 300 – 500usec Pulse)	T_A = -55 °C T_A = 100 °C	V_{F3} V_{F4}	—	1.04 0.84	V_{DC}
Reverse Leakage Current (100% of rated V_R, 300 us pulse min.)	T_A = 25 °C T_A = 100 °C	I_{R1} I_{R2}	— —	10 1000	µA
Reverse Recovery Time (I_F = 0.5A, I_R = 1A, I_{RR} = 0.25A, T_A = 25°C)		t_{RR}	—	35	nsec
Junction Capacitance (V_R=10V_{DC}, T_A=25°C, f=1MHz)		C_J	—	225	pF

NOTES:

1/ For Ordering Information, Price, and Availability Contact Factory.

2/ Screening per MIL-PRF-19500.

3/ For Package Outlines Contact Factory.

4/ Both legs tied together

5/ All Electrical Characteristics Per Leg @25 °C, Unless Otherwise Specified.

Available Part Numbers:

SDR620CT , SDR620CTE, SDR620CTS1
SDR621CT , SDR621CTE, SDR621CTS1
SDR622CT , SDR622CTE, SDR622CTS1

PIN ASSIGNMENT			
PACKAGE	**Pin 1**	**Pin 2**	**Pin 3**
LCC3, Milpack1, SMD1	Anode 1	Cathode	Anode 2