



Solid State Devices, Inc.

14830 Valley View Blvd * La Mirada, Ca 90638

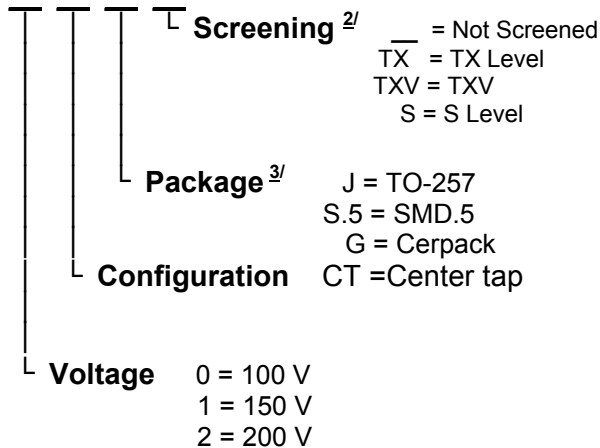
Phone: (562) 404-7855 * Fax: (562) 404-1773

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

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SDR52



SDR520CT Series

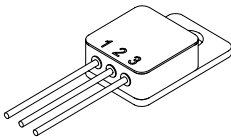
12A 28nsec 100 to 200 V Hyper Fast Center tap Rectifier

Features:

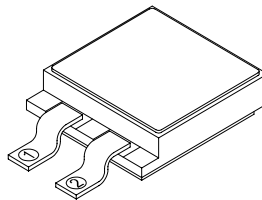
- Hyper Fast Recovery: 28nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Package
- Eutectic Die Attach
- TX, TXV, and S Level Screening Available
- Higher Voltages Available

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse Voltage	SDR520CT SDR521CT SDR522CT	V_{RRM}	100 150 200	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_C = 100^\circ\text{C}$, TO-257 = 90°C)	Total Per Leg	I_o	12 6	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$)	Per Leg	I_{FSM}	90	Amps
Operating & Storage Temperature		T_{OP} & T_{STG}	-65 to +200	$^\circ\text{C}$
Maximum Total Thermal Resistance Junction to Case	TO-257 SMD.5 & Cerpack	$R_{\theta JC}$	2.4 1.9	$^\circ\text{C/W}$

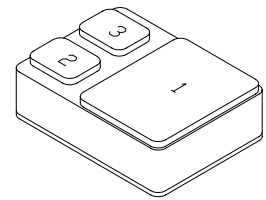
TO-257 (J)



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 #: RC0088B

DOC

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**SDR520CT
Series**

Electrical Characteristic ^{4/}	Symbol	Min	Max	Units
Instantaneous Forward Voltage Drop (T _A = 25°C, 300 – 500 µsec Pulse) I _F = 6A	V _{F1}	—	1.02	V _{DC}
Instantaneous Forward Voltage Drop (I _F = 6A, 300 – 500 µsec Pulse) T _A = -55 °C	V _{F2}	—	1.10	V _{DC}
Reverse Leakage Current (100% of rated V _R , 300 µs pulse min.) T _A = 25 °C	I _{R1}	—	2	µA
	I _{R2}	—	20	
Reverse Recovery Time (I _F = 0.5A, I _R = 1A, I _{RR} = 0.25A, T _A = 25°C)	t _{RR}	—	28	nsec
Junction Capacitance (V _R = 10V _{DC} , T _A = 25°C, f = 1MHz)	C _J	—	80	pF

NOTES:1/ For Ordering Information, Price, and Availability Contact Factory.2/ Screening per MIL-PRF-19500.3/ For Package Outlines Contact Factory.4/ All Electrical Characteristics Per Leg @25 °C, Unless Otherwise Specified.**Available Part Numbers:****SDR520CTS.5; SDR520CTG; SDR520CTJ;****SDR521CTS.5; SDR521CTG; SDR521CTJ;****SDR522CTS.5; SDR522CTG; SDR522CTJ****PIN ASSIGNMENT**

PACKAGE	Pin 1	Pin 2	Pin 3
SMD.5 (S.5)	Cathode (Base)	Anode 1	Anode 2
CERPACK (G)	Anode 1	Anode 2	Cathode (Base)
TO-257 (J)	Anode 1	Cathode	Anode 2

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