



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

**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

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SDR52

Screening ^{2/}

Package ^{3/}

Configuration

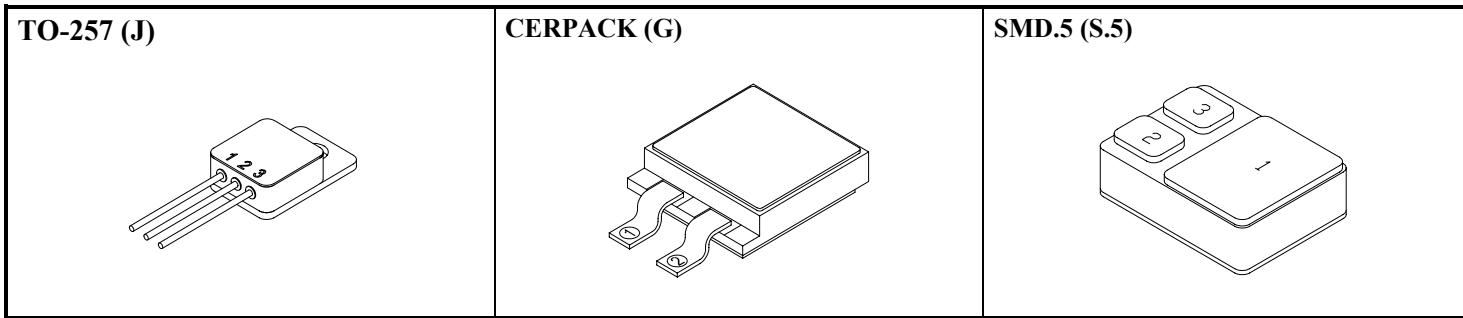
Voltage

— = Not Screened
TX = TX Level
TXV = TXV
S = S Level

J = TO-257
S.5 = SMD.5
G = Cerpack
CT = Center tap

0 = 100 V
1 = 150 V
2 = 200 V

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse Voltage	SDR520CT	V _{RRM}	100	Volts
	SDR521CT		150	
	SDR522CT		200	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T _C = 100 °C, TO-257 = 90 °C)	Total	I _O	12	Amps
	Per Leg		6	
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, T _A = 25 °C)	Per Leg	I _{FSM}	90	Amps
Operating & Storage Temperature		T _{OP} & T _{STG}	-65 to +200	°C
Maximum Total Thermal Resistance Junction to Case	TO-257	R _{θJC}	2.4	°C/W
	SMD.5 & Cerpack		1.9	



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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
	T _A = 100 °C I _{R2}	—	20	μA
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

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**