



Solid State Devices, Inc.

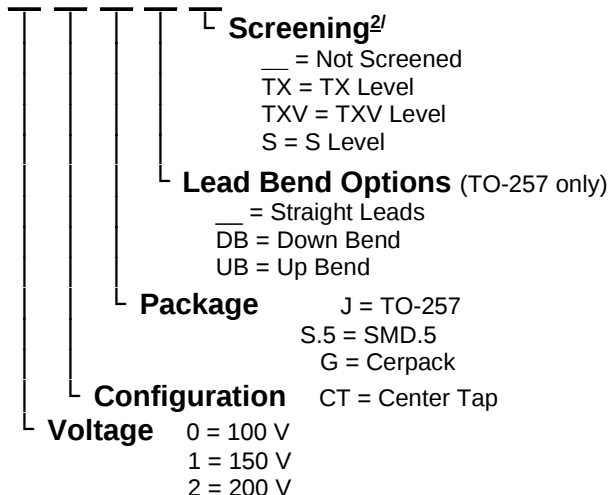
14701 Firestone Blvd * La Mirada, CA 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SDR520CT Series

DESIGNER'S DATA SHEET

Part Number / Ordering Information ^{1/}

SDR52



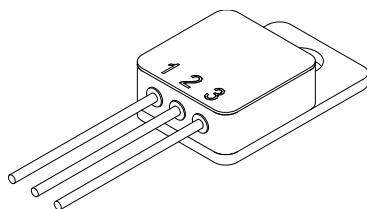
**12 A, 28 nsec
100 - 200 V
Hyperfast Center Tap Rectifier**

Features:

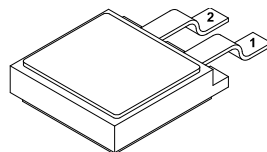
- Hyperfast Recovery: 28 nsec Maximum
- High Surge Rating
- Low Reverse Leakage Current
- Low Junction Capacitance
- Hermetically Sealed Package
- Eutectic Die Attach
- TX, TXV, and S Level Screening Available
- Higher Voltages Available

Maximum Ratings		Symbol	Value	Unit
Peak Repetitive Reverse Voltage	SDR520CT SDR521CT SDR522CT	V_{RRM}	100 150 200	V
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	A
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, $T_A = 25^\circ\text{C}$)	Per Leg	I_{FSM}	90	A
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	$^\circ\text{C/W}$

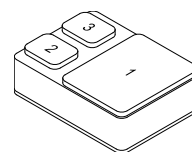
TO-257 (J)



CERPACK (G)



SMD.5 (S.5)



NOTES:

- ^{1/} For ordering information, price, and availability, contact factory.
^{2/} Screening based on MIL-PRF-19500. Screening flows available on request.
^{3/} All electrical characteristics per leg @ 25°C , unless otherwise specified.

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

DATA SHEET #: RC0088C

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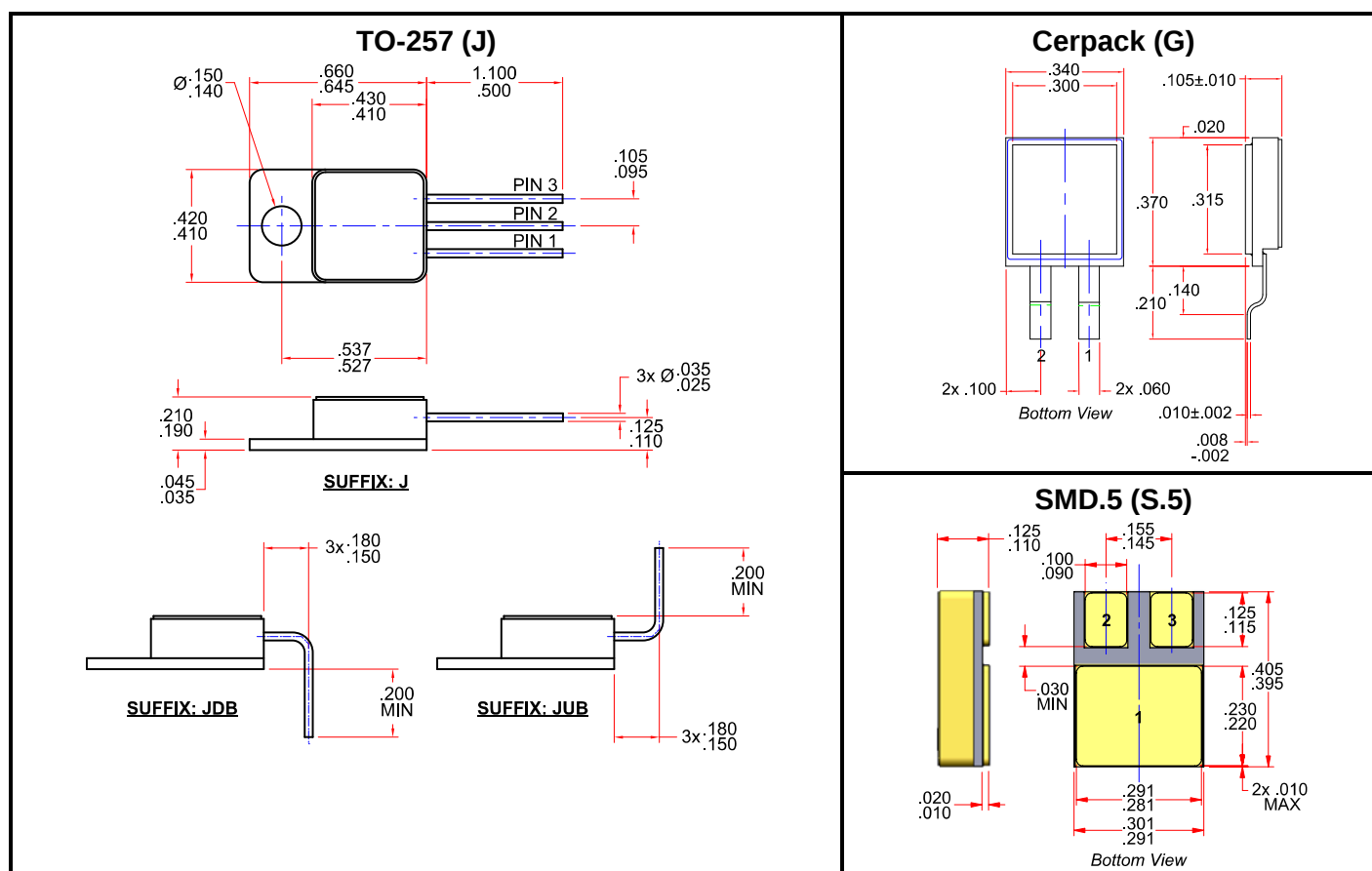


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SDR520CT Series

Electrical Characteristic ^{3/}	Symbol	Min	Max	Unit
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 – 500 μsec pulse)	$I_F = 6\text{ A}$ V_{F1}	--	1.02	V_{DC}
Instantaneous Forward Voltage Drop ($I_F = 6\text{ A}$, 300 – 500 μsec pulse)	$T_A = -55^\circ\text{C}$ V_{F2}	--	1.10	V_{DC}
Reverse Leakage Current (100% of rated V_R , 300 μsec pulse min.)	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$ I_{R1} I_{R2}	— --	2 20	μA
Reverse Recovery Time ($I_F = 0.5\text{ A}$, $I_R = 1\text{ A}$, $I_{RR} = 0.25\text{ A}$, $T_A = 25^\circ\text{C}$)	t_{RR}	—	28	nsec
Junction Capacitance ($V_R = 10\text{ V}_{DC}$, $T_A = 25^\circ\text{C}$, $f = 1\text{ MHz}$)	C_J	--	80	pF



Available Part Numbers:

SDR520CTS.5; SDR520CTG; SDR520CTJ; SDR520JDB; SDR520JUB;
SDR521CTS.5; SDR521CTG; SDR521CTJ; SDR521JDB; SDR521JUB;
SDR522CTS.5; SDR522CTG; SDR522CTJ; SDR522JDB; SDR522JUB

NOTES:

- 1/ For ordering information, price, and availability, contact factory.
- 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
- 3/ All electrical characteristics per leg @ 25°C , unless otherwise specified.

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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