



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638

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

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Designer's Data Sheet

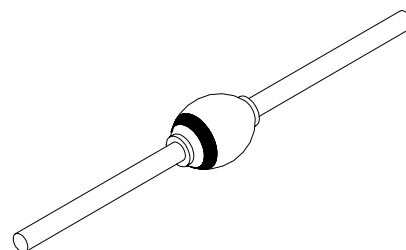
FEATURES:

- Ultra Fast Recovery: 65 nsec max
- Single Chip Construction
- PIV to 1900 Volts
- Low Reverse Leakage Current
- Hermetically Sealed
- For High Efficiency Applications
- Available in Surface Mount Versions
- Metallurgically Bonded
- TX, TXV, and Space Level Screening Available

SDR1P
thru
SDR1Y

0.75 AMP
1300 - 1900 VOLTS
65 nsec
ULTRA FAST
RECTIFIER

AXIAL



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDR1P SDR1R SDR1S SDR1T SDR1V SDR1W SDR1Y	V_{RRM} V_{RWM} V_R	1300 1400 1500 1600 1700 1800 1900	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, $T_A = 25^\circ\text{C}$)		I_o	0.75	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_o , allow junction to reach equilibrium between pulses, $T_A = 25^\circ\text{C}$)		I_{FSM}	20	Amps
Operating and Storage Temperature		T_{OP} & T_{STG}	-65 TO +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Lead, $L = 3/8"$		$R_{\theta JL}$	35	$^\circ\text{C/W}$

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

DATA SHEET #: RU0001C

SDR1P
thru
SPD1Y

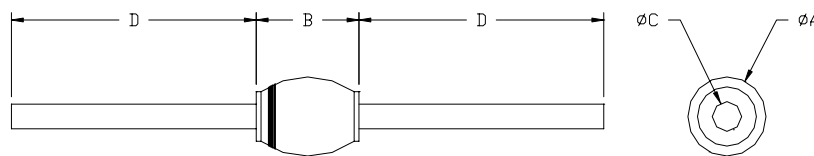


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Electrical Characteristics	SYMBOL	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop ($I_F = 0.75A_{DC}$, $T_A = 25^\circ C$, 300 - 500 μs Pulse)	V_{F1}	3.6	V_{DC}
Instantaneous Forward Voltage Drop ($I_F = 0.75A_{DC}$, $T_A = -55^\circ C$, 300 - 500 μs Pulse)	V_{F2}	3.8	V_{DC}
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ C$, 300 μs minimum Pulse)	I_{R1}	5	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ C$, 300 μs minimum Pulse)	I_{R2}	1.0	mA
Junction Capacitance ($V_R = 100 V_{DC}$, $T_A = 25^\circ C$, $f = 1$ MHz)	C_J	20	pF
Reverse Recovery Time ($I_F = 500$ mA, $I_R = 1A$, $I_{RR} = 250$ mA, $T_A = 25^\circ C$)	t_{RR}	65	nsec

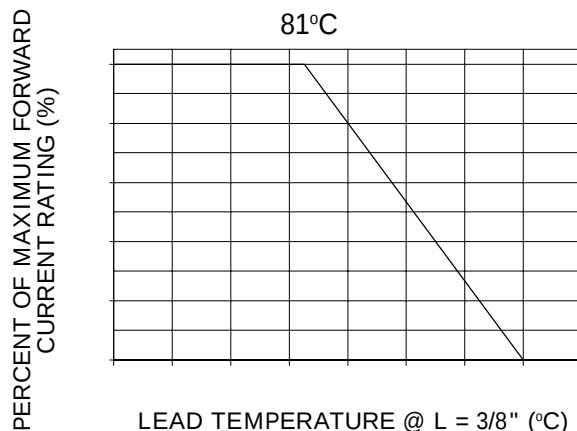
CASE OUTLINE:



DIMENSIONS

DIM	MIN.	MAX.
A	0.100"	0.150"
B	0.125"	0.200"
C	0.027"	0.033"
D	1.00"	--

TYPICAL OPERATING CURVES
($T_A = 25^\circ C$ unless otherwise specified)



FORWARD VOLTAGE

