



SOLID STATE DEVICES, INC.

14830 Valley View Blvd * La Mirada, Ca 90638
Phone: (562) 404-7855 * Fax: (562) 404-1773

Designer's Data Sheet

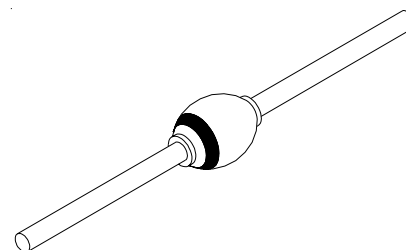
FEATURES:

- Ultra Fast Recovery: 50 - 80 nsec max @ 25°C
80 - 120nsec max @ 100°C
- Single Chip Construction
- PIV to 1200 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
- Surface Mount Available (Ref. RU0003)
- Hyperfast version Available (Ref. RH0119)

**SDR1A
thru
SDR1N**

**1 AMP
50 - 1200 VOLTS
50 - 80 nsec
ULTRA FAST
RECTIFIER**

AXIAL



Maximum Ratings		SYMBOL	VALUE	UNITS
Peak Repetitive Reverse and DC Blocking Voltage	SDR1A	V _{RRM} V _{RWM} V _R	50	Volts
	SDR1B		100	
	SDR1D		200	
	SDR1G		400	
	SDR1J		600	
	SDR1K		800	
	SDR1M		1000	
	SDR1N		1200	
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, T _A = 25 °C)		I _o	1	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°C)		I _{FSM}	25	Amps
Operating and Storage Temperature		T _{OP} & T _{STG}	-65 TO +175	°C
Maximum Thermal Resistance Junction to Lead, L = 3/8"		R _{θJL}	35	°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 #: RU0005D

SDR1A thru SDR1N



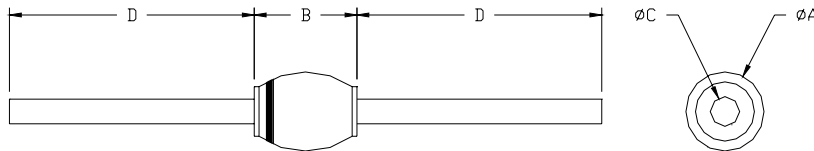
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Electrical Characteristics		SYMBOL	MAXIMUM	UNITS
Instantaneous Forward Voltage Drop ($I_F = 1A_{DC}$, $T_A = 25^\circ C$, 300 - 500 μs Pulse)	SDR1A - 1J	V_{F1}	1.7	V_{DC}
	SDR1K - 1N		1.9	
Instantaneous Forward Voltage Drop ($I_F = 1A_{DC}$, $T_A = -55^\circ C$, 300 - 500 μs Pulse)	SDR1A - 1J	V_{F2}	2.1	V_{DC}
	SDR1K - 1N		2.3	
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}	0.5	mA
Junction Capacitance ($V_R = 10 V_{DC}$, $T_A = 25^\circ C$, $f = 1$ MHz)		C_J	20	pF
Reverse Recovery Time ($I_F = 500$ mA, $I_R = 1A$, $I_{RR} = 250$ mA, $T_A = 25^\circ C$)	SDR1A - 1J	t_{RR}	50	nsec
	SDR1K		60	
	SDR1M		70	
	SDR1N		80	

CASE OUTLINE:

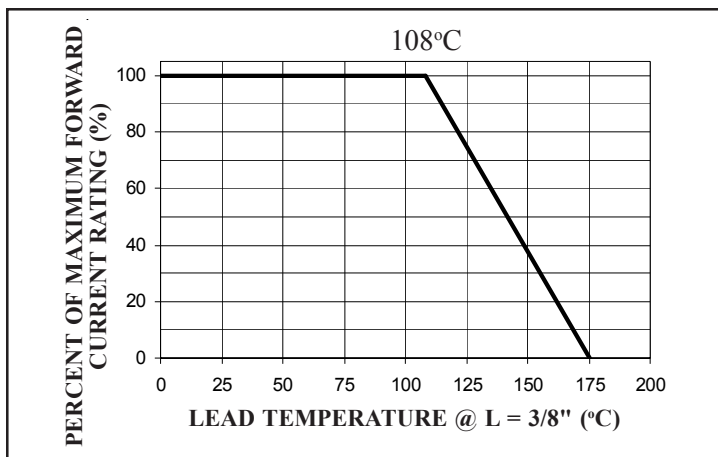


DIMENSIONS

DIM	MIN.	MAX.
A	--	0.150"
B	--	0.190"
C	0.027"	0.033"
D	.95"	--

TYPICAL OPERATING CURVES

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



FORWARD VOLTAGE

