



PRELIMINARY

SOLID STATE DEVICES, INC

14849 Firestone Boulevard · La Mirada, CA 90638
Phone: (714) 670-SSDI (7734) · Fax: (714) 522-7424

**SDR4G
thru
SDR4N**

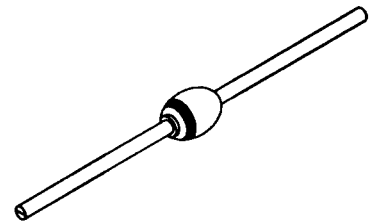
**3 AMP
400-1200 VOLTS
50-80 nsec
ULTRA FAST
RECTIFIER**

Designer's Data Sheet

FEATURES:

- Ultra Fast Recovery: 50-80 nsec Max. @ 25°C
85-125 nsec 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

AXIAL



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR4G SDR4J SDR4K SDR4M SDR4N	VRRM VRWM VR	400 600 800 1000 1200	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	Io	3	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, allow junction to reach equilibrium between pulses, TA=25°C)	IFSM	75	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to Leads, L=3/8"	RθJL	20	°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 #: RU0015 A

RMD

SDR4G thru SDR4N

PRELIMINARY



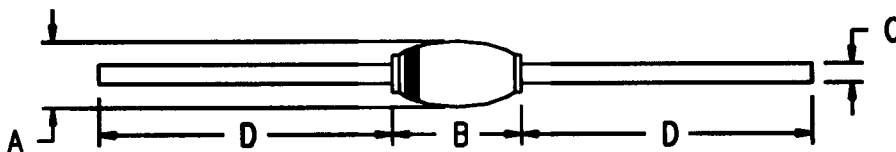
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 3 Adc, TA=25°C, 300µs Pulse)	SDR4G-J	VF	1.9	Vdc
	SDR4K-N		2.1	
Instantaneous Forward Voltage Drop (IF = 3 Adc, TA=-55°C, 300µs Pulse)	SDR4G-J	VF	2.1	Vdc
	SDR4K-N		2.3	
Reverse Leakage Current (Rated VR, TA=25°C, 300µs pulse minimum)		IR	5	µA
Reverse Leakage Current (Rated VR, TA=100°C, 300µs pulse minimum)		IR	0.5	mA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)		CJ	40	pf
Reverse Recovery Time (IF =500ma, IR = 1A, IRR=250mA, TA=25°C)	SDR4G-4J	trr	50	nsec
	SDR4K		60	
	SDR4M		70	
	SDR4N		80	

CASE OUTLINE:



DIMENSIONS

DIM	MIN.	MAX.
A	.120"	.180"
B	.130"	.230"
C	.047"	.053"
D	1.00"	---

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

