



PRELIMINARY

SOLID STATE DEVICES, INC

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

**SDR4G  
thru  
SDR4N**

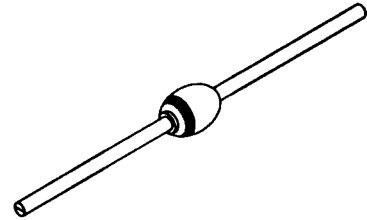
**3 AMP  
400-1200 VOLTS  
50-80 nsec  
ULTRA FAST  
RECTIFIER**

## 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	VRRM	400	Volts
SDR4J		600	
SDR4K	VRWM	800	
SDR4M		1000	
SDR4N	VR	1200	
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



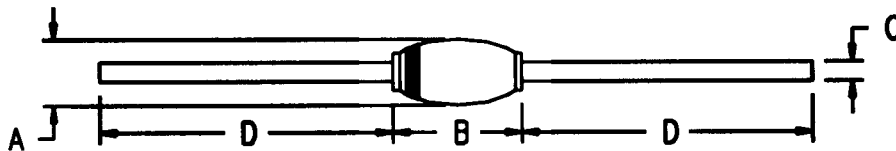
SOLID STATE DEVICES, INC

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

## 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

