



PRELIMINARY

SOLID STATE DEVICES, INC

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

**SDR4GSMS
thru
SDR4NSMS**

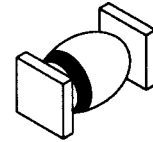
**3 AMP
400-1200 VOLTS
50-80 nsec
ULTRA FAST
RECTIFIER**

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 Surface Mount package
- For High Efficiency Applications
- Metallurgically Bonded
- Available in axial leaded versions
- TX, TXV and Space Level Screening

**SURFACE MOUNT
SQUARE TAB**



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR4GSMS SDR4JSMS SDR4KSMS SDR4MSMS SDR4NSMS	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 End Tab	RθJE	14	°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 #: RU0097 A

RMD

SDR4GSMS thru SDR4NSMS

PRELIMINARY



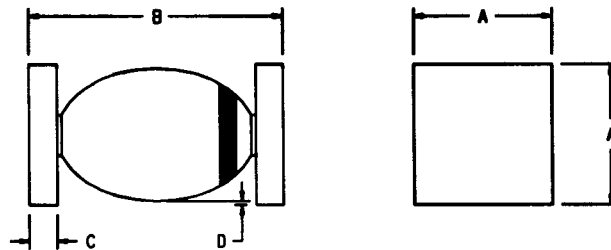
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 3 Adc, TA=25°C, 300µs Pulse)	SDR4G-JSMS	VF	1.9	Vdc
	SDR4K-NSMS		2.1	
Instantaneous Forward Voltage Drop (IF = 3 Adc, TA=-55°C, 300µs Pulse)	SDR4G-JSMS	VF	2.1	Vdc
	SDR4K-NSMS		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-4JSMS	trr	50	nsec
	SDR4KSMS		60	
	SDR4MSMS		70	
	SDR4NSMS		80	

CASE OUTLINE:



Dimensions prior to solder dipping

DIMENSIONS

DIM	MIN.	MAX.
A	.172"	.180
B	.180"	.280
C	.022"	.028
D	.002"	---

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

