



PRELIMINARY

SOLID STATE DEVICES, INC

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

**SDR4GSMS
thru
SDR4NSMS**

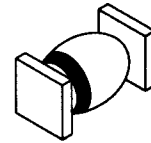
Designer's Data Sheet

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

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

**SURFACE MOUNT
SQUARE TAB**



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage			
SDR4GSMS	VRRM	400	Volts
SDR4JSMS		600	
SDR4KSMS	VRWM	800	
SDR4MSMS		1000	
SDR4NSMS	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 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

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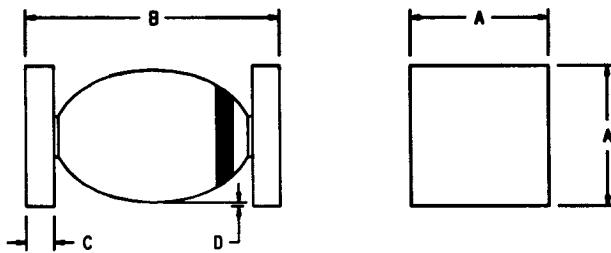
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ($I_F = 3 \text{ Adc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse)	SDR4G-JSMS	VF	1.9	Vdc
	SDR4K-NSMS		2.1	
Instantaneous Forward Voltage Drop ($I_F = 3 \text{ Adc}$, $T_A = -55^\circ\text{C}$, 300 μs Pulse)	SDR4G-JSMS	VF	2.1	Vdc
	SDR4K-NSMS		2.3	
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μs pulse minimum)		IR	5	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μs pulse minimum)		IR	0.5	mA
Junction Capacitance ($V_R = 10 \text{ Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1 \text{ MHz}$)		CJ	40	pf
Reverse Recovery Time ($I_F = 500\text{ma}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{mA}$, $T_A = 25^\circ\text{C}$)	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

$T_A = 25^\circ\text{C}$ Unless otherwise specified

