SSDI
SOLID STATE DEVICES, INC

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

PRELIMINARY

SDR4GSMS thru SDR4NSMS

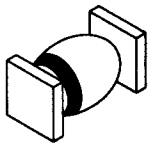
Designer's Data Sheet

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

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**	V_{RRM} V_{RWM} V_R	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)	**I_{FSM}**	75	**Amps**
Operating and storage temperature	**Top & Tstg**	-65 to +175	**°C**
Maximum Thermal Resistance Junction to End Tab	**$R\theta JE$**	14	**°C/W**

DATA SHEET #: RU0097 A

RMD

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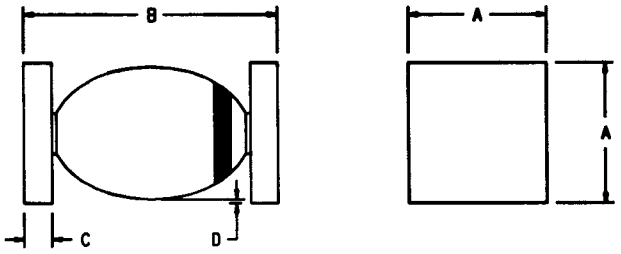
ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (I_F = 3 Adc, T_A=25°C, 300µs Pulse)	SDR4G-JSMS SDR4K-NSMS	VF	1.9 2.1	Vdc
Instantaneous Forward Voltage Drop (I_F = 3 Adc, T_A=-55°C, 300µs Pulse)	SDR4G-JSMS SDR4K-NSMS	VF	2.1 2.3	Vdc
Reverse Leakage Current (Rated VR, T_A=25°C, 300µs pulse minimum)		IR	5	µA
Reverse Leakage Current (Rated V_R, T_A=100°C, 300µs pulse minimum)		IR	0.5	mA
Junction Capacitance (V_R = 10 Vdc, T_A=25°C, f= 1 MHz)		CJ	40	pf
Reverse Recovery Time (I_F =500ma, I_R = 1A, I_{RR}=250mA, T_A=25°C)	SDR4G-4JSMS SDR4KSMS SDR4MSMS SDR4NSMS	trr	50 60 70 80	nsec

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