PRELIMINARY

SOLID STATE DEVICES, INC

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

SDR2GSM&SMS thru SDR2MSM&SMS

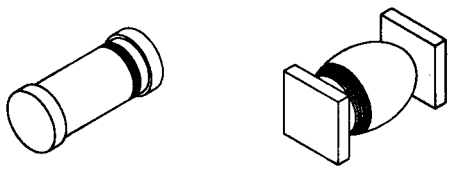
Designer's Data Sheet

1 AMP
400-1000
50-70nsec
ULTRA FAST
RECTIFIER

FEATURES:

- Ultra Fast Recovery: 50-70 nsec Max. @ 25°C
  80-120 nsec Max. @ 100°C
- PIV to 1000 Volts
- Hermetically Sealed
- Low Reverse Leakage Current
- Single Chip Construction
- For High Efficiency Applications
- Available in both round and square tab versions
- Available in axial lead versions
- TX, TXV and Space Level Screening

SM(ROUND) **SMS(SQUARE)**



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage **SDR2GSM, SMS** **SDR2JSM, SMS** **SDR2KSM, SMS** **SDR2MSM, SMS**	V_{RRM} V_{RWM} V_R	400 600 800 1000	**Volts**
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	**Io**	1	**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}**	25	**Amps**
Operating and storage temperature	**Top & Tstg**	-65 to +175	**°C**
Maximum Thermal Resistance Junction to End Tab	**$R_{\theta JE}$**	28	**°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 #: RU0007 A**	**RMD**

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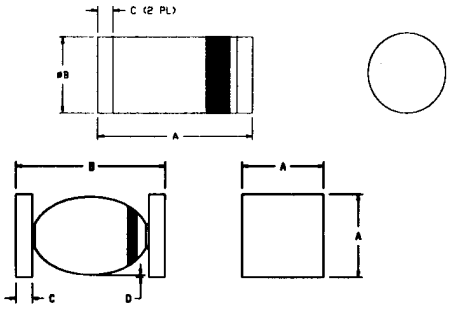
ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 1Adc, TA=25°C, 300µs Pulse)	SDR2GSM-MSM SDR2GSMS-JSMS SDR2KSMS-MSMS	VF	2.8 1.9 2.1	Vdc
Instantaneous Forward Voltage Drop (IF = 1Adc, TA=-55°C, 300µs Pulse)	SDR2GSM-MSM SDR2GSMS-JSMS SDR2KSMS-MSMS	VF	2.95 2.05 2.25	Vdc
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	20	pf
Reverse Recovery Time (IF =500ma, IR = 1A, IRR=250mA, TA=25°C)	SDR2G-JSM&SMS SDR2KSM&SMS SDR2MSM&SMS	trr	50 60 70	nsec

DIMENSIONS(SM)		
DIM	MIN.	MAX.
A	.190"	.210"
B	.095"	.105"
C	.010"	.030"



Dimensions are prior to solder dipping

DIMENSIONS (SMS)		
DIM	MIN.	MAX.
A	.127"	.140"
B	.200"	.280"
C	.022"	.028"
D	.002"	----

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified