



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

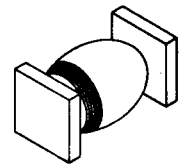
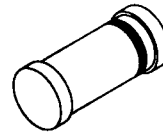
### FEATURES:

- 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

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

SM(ROUND)

SMS(SQUARE)



### MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	VRRM	400	Volts
	VRWM	600	
	VR	800	
		1000	
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)	IFSM	25	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to End Tab	RθJE	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

# SDR2GSM&SMS thru SDR2MSM&SMS

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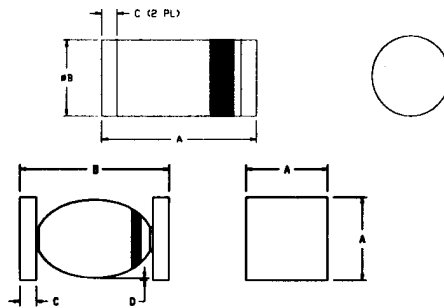
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## ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ( $I_F = 1\text{Adc}$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)	SDR2GSM-MSM	VF	2.8	Vdc
	SDR2GSMS-JSMS		1.9	
	SDR2KSMS-MSMS		2.1	
Instantaneous Forward Voltage Drop ( $I_F = 1\text{Adc}$ , $T_A = -55^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)	SDR2GSM-MSM	VF	2.95	Vdc
	SDR2GSMS-JSMS		2.05	
	SDR2KSMS-MSMS		2.25	
Reverse Leakage Current (Rated $V_R$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum)		IR	5	$\mu\text{A}$
Reverse Leakage Current (Rated $V_R$ , $T_A = 100^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum)		IR	0.5	mA
Junction Capacitance ( $V_R = 10\text{Vdc}$ , $T_A = 25^\circ\text{C}$ , $f = 1\text{MHz}$ )		CJ	20	pf
Reverse Recovery Time ( $I_F = 500\text{ma}$ , $I_R = 1\text{A}$ , $I_{RR} = 250\text{mA}$ , $T_A = 25^\circ\text{C}$ )	SDR2G-JSM&SMS	trr	50	nsec
	SDR2KSM&SMS		60	
	SDR2MSM&SMS		70	

### DIMENSIONS(SM)

DIM	MIN.	MAX.
A	.190"	.210"
B	.095"	.105"
C	.010"	.030"



### DIMENSIONS (SMS)

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

Dimensions are prior to solder dipping

## TYPICAL OPERATING CURVES

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

