



SOLID STATE DEVICES, INC

14830 Valley View Avenue

La Mirada, CA 90638

562-404-4474 F# 562-404-1773

Designer's Data Sheet

FEATURES:

- Ultra Fast Recovery: 50-70 nsec Max. @ 25°C
80-120 nsec Max. @ 100°C
- PIV to 1000 Volts (1200 Volt version available)
- Hermetically Sealed
- Low Reverse Leakage Current
- Single Chip Construction
- For High Efficiency Applications
- Available in both round and square tab versions
- Metallurgically Bonded
- TX, TXV and Space Level Screening

**SDR1ASM,SMM&SMS
thru
SDR1MSM,SMM&SMS**

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

SM(ROUND) SMM(MINI) SMS(SQUARE)



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage	SDR1ASM,SMM&SMS SDR1BSM,SMM&SMS SDR1DSM,SMM&SMS SDR1GSM,SMM&SMS SDR1JSM,SMM&SMS SDR1KSM,SMM&SMS SDR1MSM,SMM&SMS	VRRM VRWM VR	50 100 200 400 600 800 1000
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	Io	1	Volts 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 #: RU0003B

RMD

SDR1ASM,SMM&SMS thru SDR1MSM,SMM&SMS



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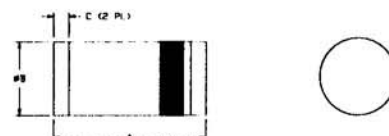
ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ($I_F = 1 \text{ A}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse)	SDR1ASMM-MSMM SDR1ASM-MSM SDR1ASMS-JSMS SDR1KSMS-MSMS	V_F	2.7 2.3 1.7 1.9	Vdc
Instantaneous Forward Voltage Drop ($I_F = 1 \text{ A}$, $T_A = -55^\circ\text{C}$, 300 μs Pulse)	SDR1ASMM-MSMM SDR1ASM-MSM SDR1ASMS-JSMS SDR1KSMS-MSMS	V_F	2.85 2.45 1.85 2.05	Vdc
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μs pulse minimum)		I_R	5	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μs pulse minimum)		I_R	500	μA
Junction Capacitance ($V_R = 10 \text{ Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1 \text{ MHz}$)		C_J	20	pf
Reverse Recovery Time ($I_F = 500 \text{ ma}$, $I_R = 1 \text{ A}$, $I_{RR} = 250 \text{ mA}$, $T_A = 25^\circ\text{C}$)	SDR1ASMM-MSMM SDR1ASM-MSM SDR1ASMS-JSMS SDR1KSMS-MSMS	t_{rr}	70 70 50 70	nsec

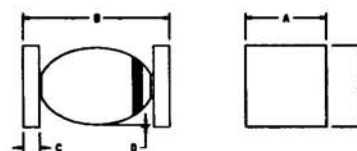
SM (ROUND)			SMM (MINI)		SMS(SQUARE)	
DIM	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
A	.190"	.210"	.135"	.145"	.134"	.153"
B	.095"	.105"	.075"	.085"	.200"	.280"
C	.010"	.030"	.010"	.030"	.022"	.028"
D	---	---	---	---	.002"	---

Dimensions are prior to solder dip

SM & SMM



SMS



TYPICAL OPERATING CURVES

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

