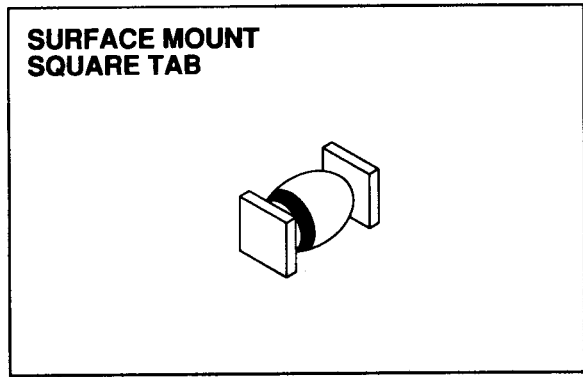


**SDR6KSMS
 and
 SDR6MSMS**

Designer's Data Sheet

**6 AMP
 800-1000 VOLTS
 60-70 nsec
 ULTRA FAST
 RECTIFIER**

- FEATURES:**
- Ultra Fast Recovery: 60-70 nsec Max. @ 25°C
 115-120 nsec Max. @ 100°C
 - Single Chip Construction
 - PIV to 1000 Volts
 - Low Reverse Leakage Current
 - Hermetically Sealed Surface Mount package
 - Replaces larger DO-4 Rectifiers
 - Metallurgically Bonded
 - Available in axial leaded versions
 - TX, TXV and Space Level Screening Available



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR6KSMS SDR6MSMS	VRRM	800	Volts
	VRWM	1000	
	VR		
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	6	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	150	Amps
Operating and storage temperature	Top & Tstg	-65 to +175	°C
Maximum Thermal Resistance Junction to End Tab	RθJE	8	°C/W

SDR6KSMS and SDR6MSMS

PRELIMINARY



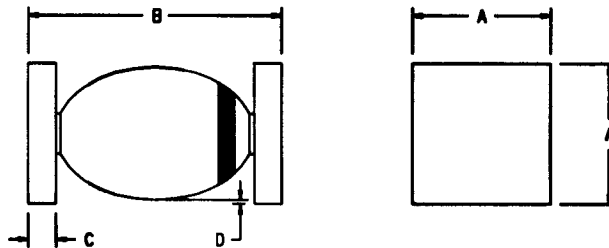
SOLID STATE DEVICES, INC

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

ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ($I_F = 6 \text{ Adc}$, $T_A = 25^\circ\text{C}$, 300 μs Pulse)	VF	1.9	Vdc
Instantaneous Forward Voltage Drop ($I_F = 6 \text{ Adc}$, $T_A = -55^\circ\text{C}$, 300 μs Pulse)	VF	2.1	Vdc
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μs pulse minimum)	IR	10	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μs pulse minimum)	IR	1	mA
Junction Capacitance ($V_R = 10 \text{ Vdc}$, $T_A = 25^\circ\text{C}$, $f = 1\text{MHz}$)	CJ	80	pf
Reverse Recovery Time ($I_F = 500\text{ma}$, $I_R = 1\text{A}$, $I_{RR} = 250\text{mA}$, $T_A = 25^\circ\text{C}$)	trr	60 70	nsec

CASE OUTLINE:



DIMENSIONS

DIM	MIN.	MAX.
A	.195"	.205"
B	.200"	.250"
C	.022"	.028"
D	.002"	—

Dimensions prior to solder dipping.

TYPICAL OPERATING CURVES

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

