

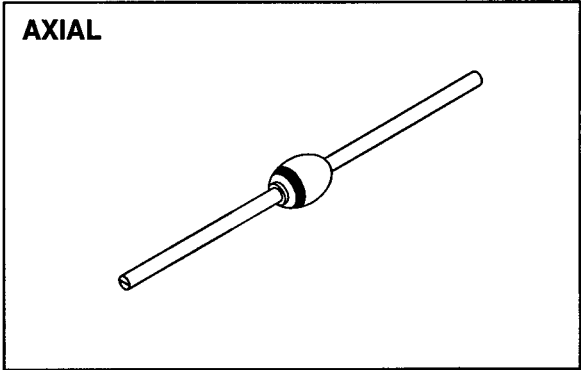
SRS1 SERIES

Designer's Data Sheet

**1 AMP
 200-1200 VOLTS
 50-65 nsec
 ULTRA FAST
 RECTIFIER**

FEATURES:

- Ultra Fast Recovery
- Single Chip Construction
- PIV to 1200 Volts
- Extremely Low Reverse Leakage Current
- Hermetically Sealed
- For High Efficiency Applications
- Available in Surface Mount versions
- Metallurgically Bonded
- TX, TXV, and Space Level Screening Available



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage			
SRS1D	VRRM	200	Volts
SRS1G		400	
SRS1J	VRWM	600	
SRS1K		800	
SRS1M	VR	1000	
SRS1N		1200	
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 Leads, L=3/8"	RθJL	35	°C/W

SRS1 SERIES

PRELIMINARY



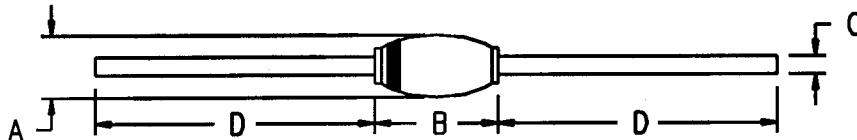
SOLID STATE DEVICES, INC

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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS		SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop ($I_F = 1 \text{ Adc}$, $T_A = 25^\circ \text{C}$, 300-500 μs Pulse)	SRS1D-1J SRS1K-1N	V_F	1.7 1.9	Vdc
Instantaneous Forward Voltage Drop ($I_F = 1 \text{ Adc}$, $T_A = -55^\circ \text{C}$, 300-500 μs Pulse)	SRS1D-1J SRS1K-1N	V_F	1.85 2.05	Vdc
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ \text{C}$, 300 μs pulse minimum)		I_R	0.5	μA
Reverse Leakage Current (Rated V_R , $T_A = 100^\circ \text{C}$, 300 μs pulse minimum)		I_R	50	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 ($I_F = 500 \text{ mA}$, $I_R = 1 \text{ A}$, $I_{RR} = 250 \text{ mA}$, $T_A = 25^\circ \text{C}$)	SRS1D-1K SRS1M-1N	t_{rr}	60 70	nsec

CASE OUTLINE:



DIMENSIONS

DIM	MIN.	MAX.
A	---	.090"
B	---	.190"
C	.027"	.033"
D	1.00"	---

TYPICAL OPERATING CURVES

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

