



PRELIMINARY

SOLID STATE DEVICES, INC

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

**SDR1004F
thru
SDR1010F**

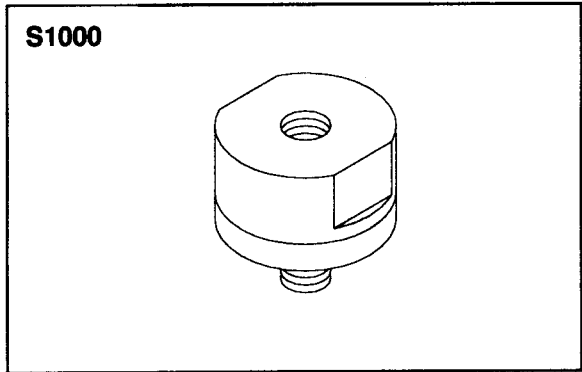
Designer's Data Sheet

**100 AMPS
400-1000 VOLTS
270 nsec
FAST
RECTIFIER**

FEATURES:

- Fast Recovery: 270 nsec maximum
- PIV to 1000 Volts
- Stackable for Application Specific Voltage
- Low Reverse Leakage Current
- Low Thermal Impedance
- Hermetically Sealed
- Single Chip Construction
- High Surge Rating
- Low Thermal Resistance

- For Reverse Polarity add suffix "R"
- TX, TXV, and Space Level Screening



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SDR1004F SDR1006F SDR1008F SDR1010F	VRRM VRWM VR	400 600 800 1000	Volts
Average Rectified Forward Current (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	100	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave, TA=25°C)	IFSM	1250	Amps
Operating and storage temperature	Top & Tstg	-65 to +150	°C
Maximum Thermal Resistance Junction to Case	RθJC	0.5	°C/W

SDR1004F thru SDR1010F

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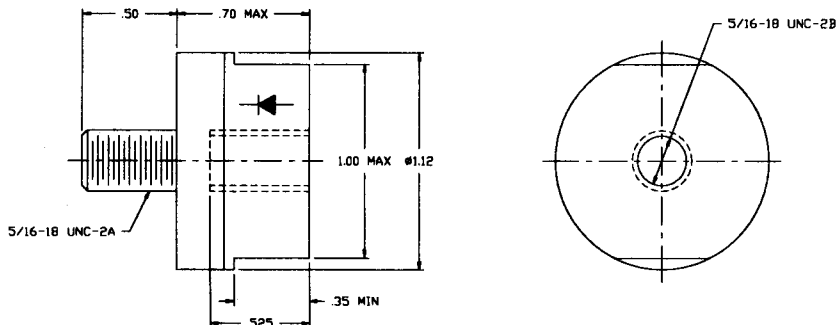
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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 100 Adc, TA=25°C, 300µs Pulse)	V _F	1.6	V _{dc}
Instantaneous Forward Voltage Drop (IF = 100 Adc, TA= - 55°C, 300µs Pulse)	V _F	1.75	V _{dc}
Reverse Leakage Current (Rated V _R , TA=25°C, 300µs pulse minimum)	I _R	50	µA
Reverse Leakage Current (Rated V _R , TA=100°C, 300µs pulse minimum)	I _R	2	mA
Junction Capacitance (V _R = 10 V _{dc} , TA=25°C, f= 1 MHz)	C _J	400	pf
Reverse Recovery Time (IF=500mA, I _R =1 A, I _{RR} =250mA, TA=25°C)	t _{rr}	270	nsec

CASE OUTLINE: S1000



TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

