



PRELIMINARY

SOLID STATE DEVICES, INC

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

**SPD4942SM
thru
SPD4948SM**

Designer's Data Sheet

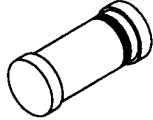
FEATURES:

- Fast Recovery: 150-200 nsec maximum
- PIV to 1000 Volts
- Low Reverse Leakage Current
- Hermetically Sealed Surface Mount Package
- Single Chip Construction
- High Surge Rating
- Low Thermal Resistance

- TX, TXV, and Space Level Screening available

**1 AMPS
200-1000 VOLTS
150-200 nsec
FAST RECOVERY
RECTIFIER**

**SURFACE MOUNT
ROUND TAB**



MAXIMUM RATINGS

RATING	SYMBOL	VALUE	UNIT
Peak Repetitive Reverse and DC Blocking Voltage SPD4942SM SPD4943SM SPD4944SM SPD4945SM SPD4946SM SPD4947SM SPD4948SM	VRRM VRWM VR	200 300 400 500 600 800 1000	Volts
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	35	°C/W

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ELECTRICAL CHARACTERISTICS

CHARACTERISTICS	SYMBOL	MAXIMUM	UNIT
Instantaneous Forward Voltage Drop (IF = 1 Adc, TA=25°C, 300µs Pulse)	VF	1.3	Vdc
Instantaneous Forward Voltage Drop (IF = 1 Adc, TA= - 55°C, 300µs Pulse)	VF	1.5	Vdc
Reverse Leakage Current (Rated VR, TA=25°C, 300µs pulse minimum)	IR	1	µA
Reverse Leakage Current (Rated VR, TA=100°C, 300µs pulse minimum)	IR	20	µA
Junction Capacitance (VR = 10 Vdc, TA=25°C, f= 1 MHz)	CJ	20	pf
Reverse Recovery Time (IF=500mA, IR=1 A, IRR=250mA, TA=25°C)	trr	150 200	nsec
			SPD4942-4945 SPD4946-4948

CASE OUTLINE: SURFACE MOUNT ROUND TAB



DIMENSIONS

DIM	MIN	MAX
A	.185"	.205"
B	.095"	.105"
C	.015"	.035"

Dimensions prior to solder dipping

TYPICAL OPERATING CURVES

TA=25°C Unless otherwise specified

