



PRELIMINARY

# SOLID STATE DEVICES, INC

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

**SPD4942SM  
thru  
SPD4948SM**

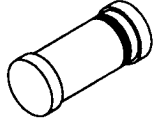
## Designer's Data Sheet

### 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
<b>Peak Repetitive Reverse and DC Blocking Voltage</b> SPD4942SM SPD4943SM SPD4944SM SPD4945SM SPD4946SM SPD4947SM SPD4948SM	VRRM  VRWM  VR	200 300 400 500 600 800 1000	Volts
<b>Average Rectified Forward Current</b> (Resistive Load, 60Hz, Sine Wave, TA=25°C)	IO	1	Amps
<b>Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave Superimposed on IO, allow junction to reach equilibrium between pulses, TA=25°C)	IFSM	25	Amps
<b>Operating and storage temperature</b>	Top & Tstg	-65 to +175	°C
<b>Maximum Thermal Resistance</b> Junction to End Tab	RθJE	35	°C/W

# SPD4942SM thru SPD4948SM

PRELIMINARY



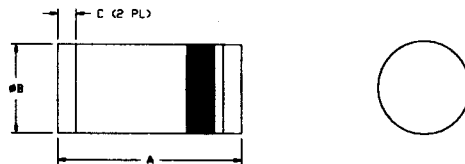
**SOLID STATE DEVICES, INC**

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 (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

