



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638

Phone: (562) 404-4474 * Fax: (562) 404-1773

ssdi@ssdi-power.com * www.ssdi-power.com

**SPD5614SM
thru
SPD5622SMS**

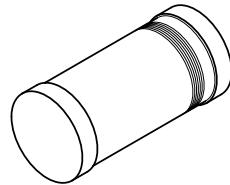
Designer's Data Sheet

FEATURES:

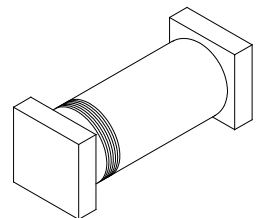
- **Standard Recovery: 5 μ sec Maximum**
- **PIV 200 to 1000 Volts**
- **Low Reverse Leakage Current**
- **Hermetically Sealed Surface Mount package**
- **Single Chip Construction**
- **High Surge Rating**
- **Low Thermal Resistance**
- **Available in round or square tab versions**
- **Higher Voltages Available Up To 1,800V-Contact Factory**
- **TX, TXV, and Space Level Screening Available**

**1 AMP
200 – 1000 VOLTS
STANDARD RECOVERY
RECTIFIER**

**SURFACE MOUNT
ROUND TAB (SM)**



**SURFACE MOUNT
SQUARE TAB (SMS)**



MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	SPD5614SM & SMS	V_{RRM}	200	Volts
	SPD5616SM & SMS		400	
	SPD5618SM & SMS	V_{RWM}	600	
	SPD5620SM & SMS		800	
	SPD5622SM & SMS	V_R	1000	
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave, $T_A=25^\circ\text{C}$)		I_O	1	Amps
Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on I_O , allow junction to reach equilibrium between pulses, $T_A=25^\circ\text{C}$)		I_{FSM}	30	Amps
Operating and Storage Temperature		T_J & T_{stg}	-65 to +175	$^\circ\text{C}$
Thermal Resistance Junction to End Tab		$R_{\theta JE}$	30	$^\circ\text{C/W}$

NOTE: All specifications are subject to change without notification. SCD's for these devices should be reviewed by SSDI prior to release.

DATA SHEET #: R00013D

DOC



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**SPD5614SM
 thru
 SPD5622SMS**

ELECTRICAL CHARACTERISTICS	Symbol	Value	Unit
Instantaneous Forward Voltage Drop ($I_F = 1$ Amp, $T_A = 25^\circ\text{C}$, 300 μs Pulse)	V_F	1.0	Volts
Instantaneous Forward Voltage Drop ($I_F = 1$ Amp, $T_A = -55^\circ\text{C}$, 300 μs Pulse)	V_F	1.2	Volts
Reverse Leakage Current (Rated V_R , $T_A = 25^\circ\text{C}$, 300 μs Pulse minimum)	I_R	2	μA
Max Reverse Leakage Current (Rated V_R , $T_A = 100^\circ\text{C}$, 300 μs Pulse minimum)	I_R	200	μA
Max Junction Capacitance ($V_R = 10$ V _{DC} , $T_A = 25^\circ\text{C}$, $f = 1$ MHz)	C_J	20	pf
Reverse Recovery Time ($I_F = 500$ mA, $I_R = 1$ A, $I_{RR} = 250$ mA, $T_A = 25^\circ\text{C}$)	t_{rr}	5	μsec

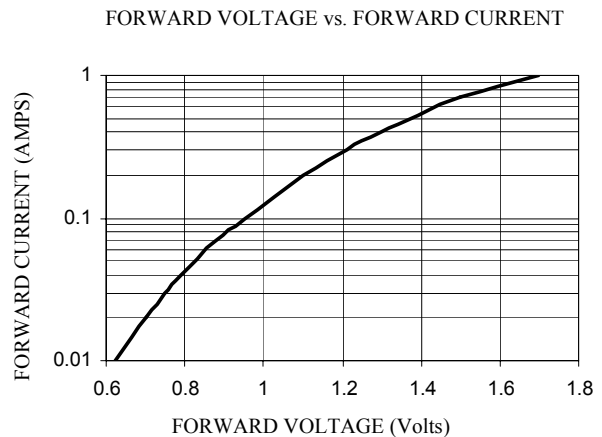
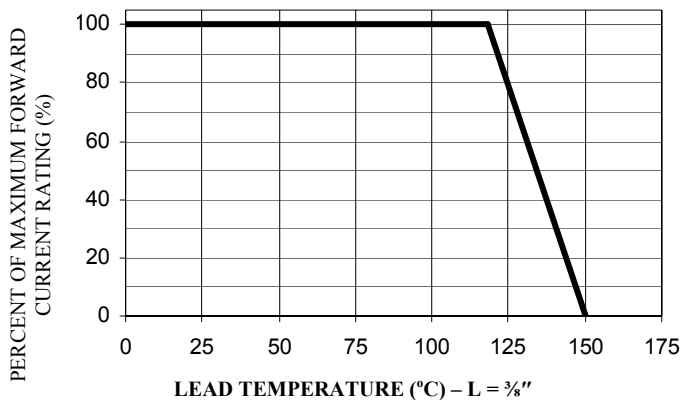
CASE OUTLINE: (SM) SURFACE MOUNT ROUND TAB

DIMENSIONS		
DIM.	MIN.	MAX.
A	.095"	.105"
B	.185"	.205"
C	.010"	.022"

CASE OUTLINE: (SMS) SURFACE MOUNT SQUARE TAB

DIMENSIONS		
DIM.	MIN.	MAX.
A	.125"	.135"
B	.235"	.255"
C	.022"	.028"
D	.002"	

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



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