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

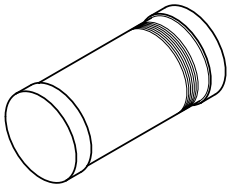
Designer's Data Sheet

1 AMP 200 – 1000 VOLTS STANDARD RECOVERY RECTIFIER

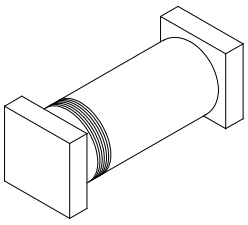
FEATURES:

- **Standard Recovery: 5 µsec 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**

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°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°C)		I_{FSM}	30	**Amps**
Operating and Storage Temperature		T_J & Tstg	-65 to +175	°C
Thermal Resistance Junction to End Tab		$R_{\theta JE}$	30	°C/W

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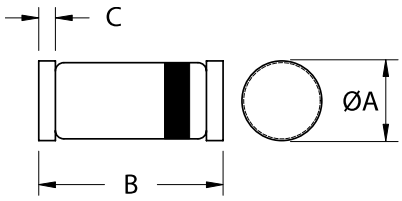
SPD5614SM thru SPD5622SMS

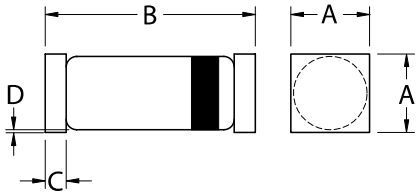
ELECTRICAL CHARACTERISTICS	Symbol	Value	Unit
Instantaneous Forward Voltage Drop (I_F = 1 Amp, T_A = 25°C, 300 µs Pulse)	V_F	1.0	**Volts**
Instantaneous Forward Voltage Drop (I_F = 1 Amp, T_A = -55°C, 300 µs Pulse)	V_F	1.2	**Volts**
Reverse Leakage Current (Rated V_R, T_A = 25°C, 300 µs Pulse minimum)	I_R	2	**µA**
Max Reverse Leakage Current (Rated V_R, T_A = 100°C, 300 µs Pulse minimum)	I_R	200	**µA**
Max Junction Capacitance (V_R =10 V_{DC}, T_A = 25°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°C)	t_{rr}	5	**µsec**

CASE OUTLINE: (SM) SURFACE MOUNT ROUND TAB



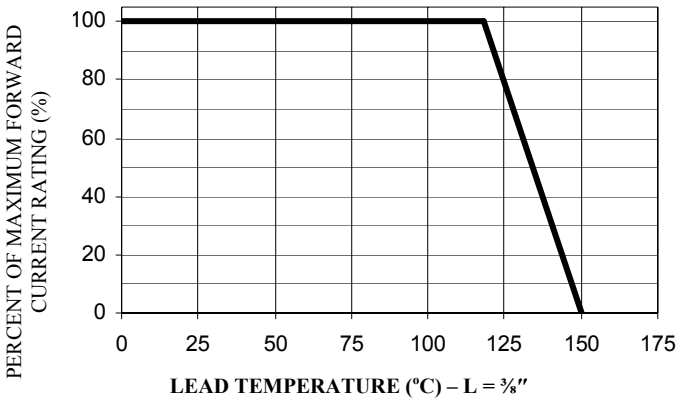
DIMENSIONS		
DIM.	MIN.	MAX.
A	.095”	.105”
B	.185”	.205”
C	.010”	.022”

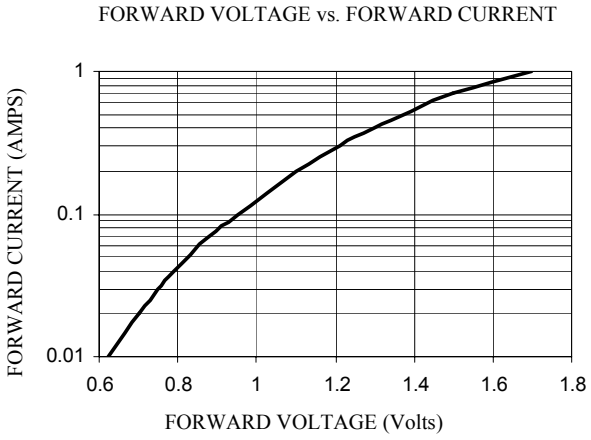
CASE OUTLINE: (SMS) SURFACE MOUNT SQUARE TAB



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

TYPICAL OPERATING CURVES
T_A = 25°C Unless otherwise specified





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