Solid State Devices, Inc.
14701Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
ssdi@ssdi-power.com * www.ssdi-power.com

SPD5614 thru SPD5622
SPD5614SM thru SPD5622SM
SPD5614SMS thru SPD5622SMS

Designer's Data Sheet

Part Number/Ordering Information [1/]

SPD ____ ____ ____

Screening [2/]
__ = Not Screened
TX = TX Level
TXV = TXV
S = S Level (for SM, use –S)

Package Type
__ = Axial Leaded
SM = Surface Mount Round Tab
SMS = Surface Mount Square Tab

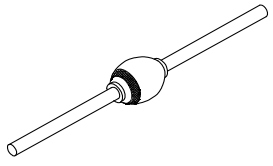
Voltage/Family
5614 = 200V
5616 = 400V
5618 = 600V
5620 = 800V
5622 = 1000V

1 AMP
200 – 1000 VOLTS
STANDARD RECOVERY
RECTIFIER

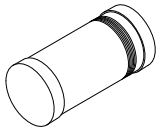
FEATURES:
- Fast Recovery: 5 µsec Maximum
- PIV 200 to 1000 Volts
- Low Reverse Leakage Current
- Hermetically Sealed
- Single Chip Construction
- High Surge Rating
- Low Thermal Resistance
- Replaces 1N5614 to 1N5622
- TX, TXV, and Space Level Screening Available [2/]

MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	SPD5614	V_{RRM}	200	**Volts**
	SPD5616		400	
	SPD5618	V_{RWM}	600	
	SPD5620		800	
	SPD5622	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 Leads, L = ⅜″		$R_{\theta JL}$	35	°C/W
		$R_{\theta JE}$	30	

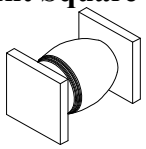
Axial



Surface Mount Round Tab (SM)



Surface Mount Square Tab (SMS)



1/ For Ordering Information, Price, Operating Curves, and Availability- Contact Factory.

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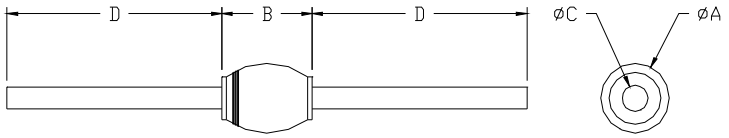
SPD5614 thru SPD5622
SPD5614SM thru SPD5622SM
SPD5614SMS thru SPD5622SMS

2/ Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

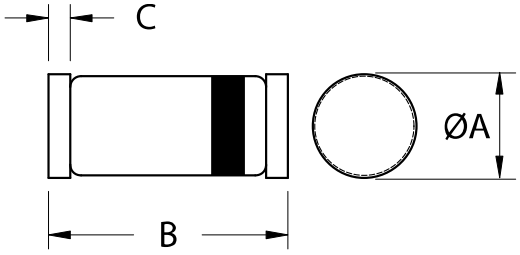
ELECTRICAL CHARACTERISTICS	Symbol	Value	Unit
Instantaneous Forward Voltage Drop (I_F = 1 Amp, T_A = 25°C, 300-500 µs Pulse)	V_F	1.0	**Volts**
Instantaneous Forward Voltage Drop (I_F = 1 Amp, T_A = -55°C, 300-500 µs Pulse)	V_F	1.2	**Volts**
Reverse Leakage Current (Rated V_R, T_A = 25°C, 300 µs Pulse 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: AXIAL



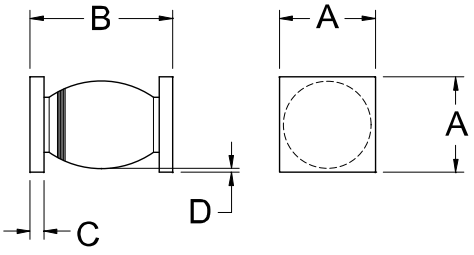
DIMENSIONS		
DIM	**MIN**	**MAX**
A	---	.150"
B	---	.180"
C	.027"	.033"
D	1.00"	---

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	.205”	.255”
C	.022”	.028”
D	.002”	---