



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
 Phone: (562) 404-4474 * Fax: (562) 404-1773
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**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

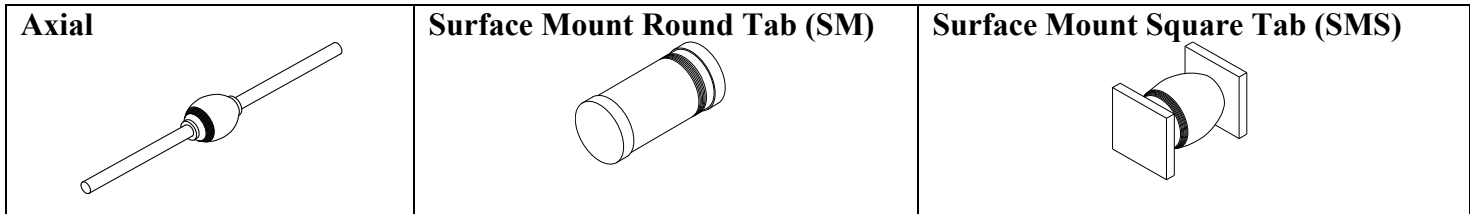
Package Type
 — = Axial Leaded
 SM = Surface Mount Round Tab
 SMS = Surface Mount Square Tab

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, $T_A=25^\circ\text{C}$)		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 Leads, $L = 3/8''$		$R_{\theta JL}$	35	$^\circ\text{C/W}$
		$R_{\theta JE}$	30	



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

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



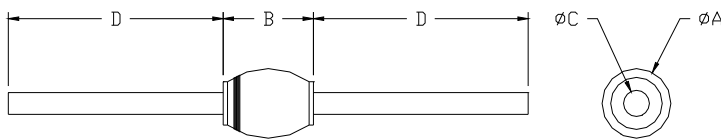
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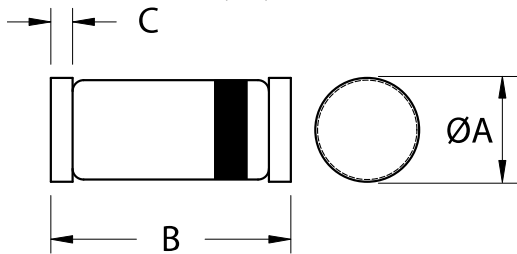
ELECTRICAL CHARACTERISTICS	Symbol	Value	Unit
Instantaneous Forward Voltage Drop ($I_F = 1$ Amp, $T_A = 25^\circ\text{C}$, 300-500 μs Pulse)	V_F	1.0	Volts
Instantaneous Forward Voltage Drop ($I_F = 1$ Amp, $T_A = -55^\circ\text{C}$, 300-500 μs Pulse)	V_F	1.2	Volts
Reverse Leakage Current (Rated V_R ,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



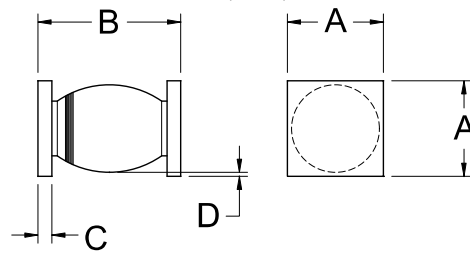
DIMENSIONS		
DIM	MIN	MAX
A	---	.150"
B	---	.180"
C	.027"	.033"
D	1.00"	---

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"	---

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

DATA SHEET #: R00011D

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