



Solid State Devices, Inc.

14830 Valley View Blvd * La Mirada, Ca 90638

Phone: (562) 404-7855 * Fax: (562) 404-1773

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**SPD5614
thru
SPD5622**

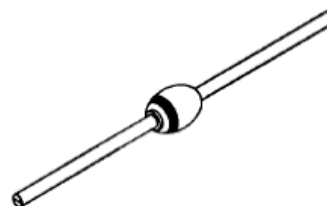
Designer's Data Sheet

FEATURES:

- **Fast Recovery: 5 μ sec Maximum**
- **PIV 200 to 1000 Volts**
- **Low Reverse Leakage Current**
- **Hermetically Sealed**
- **Single Chip Construction**
- **High Surge Rating**
- **Low Thermal Resistance**
- **Available in Surface Mount Versions**
- **Replaces 1N5614 to 1N5622**
- **TX, TXV, and Space Level Screening Available**

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

AXIAL



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, $L = \frac{3}{8}"$		$R_{\theta JL}$	35	$^\circ\text{C/W}$

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

DATA SHEET #: R00011B

DOC



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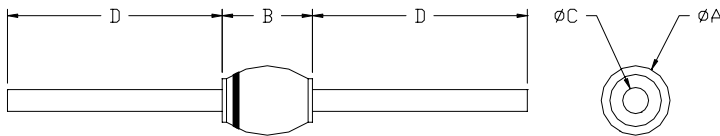
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ELECTRICAL CHARACTERISTICS	Symbol	Value	Unit
Instantaneous Forward Voltage Drop ($I_F = 1$ Amp, $T_A = 25^\circ\text{C}$, 300 μs Pulse)	V_F	1.0	Volts
Instantaneous Forward Voltage Drop ($I_F = 1$ Amp, $T_A = -55^\circ\text{C}$, 300 μs Pulse)	V_F	1.2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



KEY TO DIMENSIONS		
Section	MIN	MAX
ϕA	---	0.150"
B	---	0.180"
ϕC	0.027"	0.033"
D	1.00"	---

TYPICAL OPERATING CURVES

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

