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

SPD5624 - SPD5628 and SPD5624SMS - SPD5628SMS

DESIGNER'S DATA SHEET

Part Number / Ordering Information [1/]

SPD56__ __ __

- **Screening**[2/] = None, TX = TX Level, TXV = TXV Level, S = S Level
- **Package** __ = Axial Leaded, SMS = Surface Mount Square Tab
- **Voltage** 24 = 200 V, 25 = 400 V, 26 = 600 V, 27 = 800 V, 28 = 1000 V

3 AMP
200-1000 Volts
5 μsec
STANDARD RECOVERY RECTIFIER

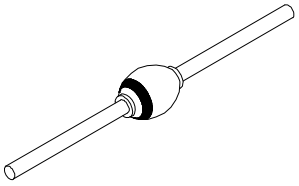
Features:

- Fast Recovery: 5 μsec Max.
- PIV to 1000 Volts
- Low Reverse Leakage Current
- Hermetically Sealed
- Single Chip Construction
- High Surge Rating
- Low Thermal Resistance
- Available in Axial Leaded and Surface Mount Versions
- Available in Fast, Ultra Fast, and Hyper Fast Versions – Contact Factory
- Replacement for 1N5624-1N5628 and 1N5624US-1N5628US

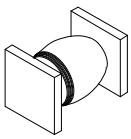
Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	**SPD5624 & SPD5624SMS**	V_{RRM}	200	**Volts**
	SPD5625& SPD5625SMS		400	
	SPD5626 & SPD5626SMS	V_{RWM}	600	
	SPD5627 & SPD5627SMS		800	
	SPD5628 & SPD5628SMS	V_R	1000	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T_A = 25ºC)		**Io**	3	**Amps**
Repetitive Peak Surge Current (8.3 ms Pulse, Half Sine Wave Superimposed on Io, Allow Junction to Reach Equilibrium Between Pulses, T_A = 25ºC)		I_{FSM}	125	**Amps**
Operating & Storage Temperature		**Top & Tstg**	-65 to +175	**ºC**
Maximum Thermal Resistance Junction to Leads, L = 3/8 "		$R_{\theta JL}$	25	**ºC/W**

Notes:
1/ For Ordering Information, Price, Operating Curves, and Availability – Contact Factory.
2/ Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

Axial Leaded



SMS (Square)



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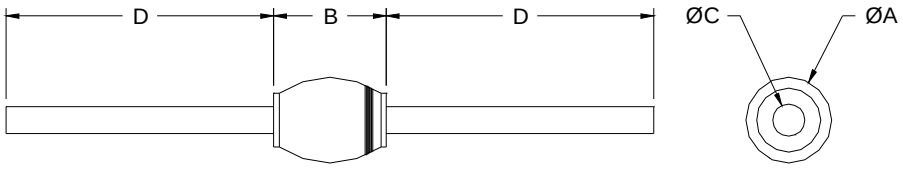
SPD5624 - SPD5628 and SPD5624SMS - SPD5628SMS

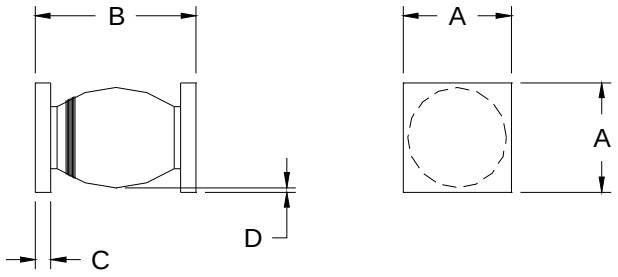
Electrical Characteristics	Symbol	Max	Units
Instantaneous Forward Voltage Drop (I_F = 3 Adc, T_A = 25ºC, 300 µs pulse)	V_F	1.0	**Vdc**
Instantaneous Forward Voltage Drop (I_F = 3 Adc, T_A = -55ºC, 300 µs pulse)	V_F	1.2	**Vdc**
Reverse Leakage Current (Rated V_R, T_A = 25ºC, 300 µs pulse minimum)	I_R	2	**µA**
Reverse Leakage Current (Rated V_R, T_A = 100ºC, 300 µs pulse minimum)	I_R	200	**µA**
Junction Capacitance (V_R = 10 Vdc, T_A = 25ºC, f = 1MHz)	C_J	40	**pF**
Reverse Recovery Time (**I_F** = 500 mA, I_R = 1A, I_{RR} = 0.25A, T_A = 25ºC)	t_{rr}	5	**µsec**

Case Outline: (Axial)



DIMENSIONS		
DIM	**MIN**	**MAX**
A	---	.200”
B	---	.230”
C	.047”	.053”
D	1.00”	---

Case Outline: (SMS)



DIMENSIONS		
DIM	**MIN**	**MAX**
A	.172”	.180”
B	.180”	.280”
C	.022”	.028”
D	.002”	---