



**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 <sup>1/</sup>**

**SPD56** \_ \_ \_

L **Screening**<sup>2/</sup> = None  
           TX = TX Level  
           TXV = TXV Level  
           S = S Level

**Package**

\_ \_ = Axial Leaded  
 SMS = Surface Mount Square Tab

L **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

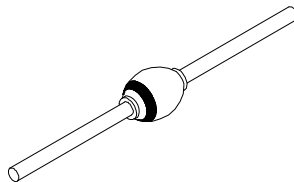
Maximum Ratings	Symbol	Value	Units
<b>Peak Repetitive Reverse and DC Blocking Voltage</b>	SPD5624 & SPD5624SMS	V <sub>RRM</sub>	200
	SPD5625 & SPD5625SMS		400
	SPD5626 & SPD5626SMS	V <sub>RWM</sub>	600
	SPD5627 & SPD5627SMS		800
	SPD5628 & SPD5628SMS	V <sub>R</sub>	1000
<b>Average Rectified Forward Current</b> (Resistive Load, 60 Hz Sine Wave, T <sub>A</sub> = 25°C)	I <sub>o</sub>	3	Amps
<b>Repetitive Peak Surge Current</b> (8.3 ms Pulse, Half Sine Wave Superimposed on I <sub>o</sub> , Allow Junction to Reach Equilibrium Between Pulses, T <sub>A</sub> = 25°C)	I <sub>FSM</sub>	125	Amps
<b>Operating &amp; Storage Temperature</b>	Top & Tstg	-65 to +175	°C
<b>Maximum Thermal Resistance</b> Junction to Leads, L = 3/8 "	R <sub>θJL</sub>	25	°C/W

**Notes:**

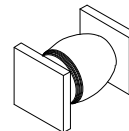
<sup>1/</sup> For Ordering Information, Price, Operating Curves, and Availability – Contact Factory.

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

**Axial Leaded**



**SMS (Square)**



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

**DATA SHEET #: R00019B**

**DOC**



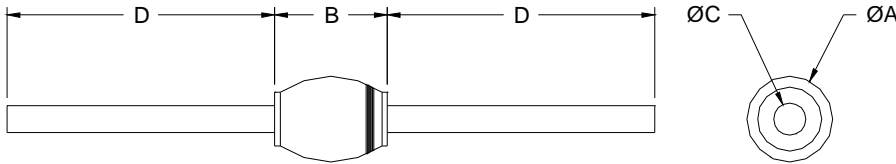
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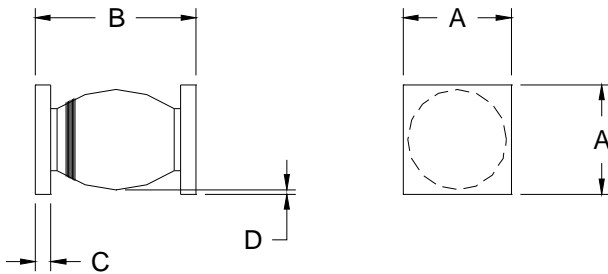
Electrical Characteristics	Symbol	Max	Units
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 3 \text{ A dc}$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ pulse)	$V_F$	1.0	Vdc
<b>Instantaneous Forward Voltage Drop</b> ( $I_F = 3 \text{ A dc}$ , $T_A = -55^\circ\text{C}$ , 300 $\mu\text{s}$ pulse)	$V_F$	1.2	Vdc
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 25^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum)	$I_R$	2	$\mu\text{A}$
<b>Reverse Leakage Current</b> (Rated $V_R$ , $T_A = 100^\circ\text{C}$ , 300 $\mu\text{s}$ pulse minimum)	$I_R$	200	$\mu\text{A}$
<b>Junction Capacitance</b> ( $V_R = 10 \text{ Vdc}$ , $T_A = 25^\circ\text{C}$ , $f = 1\text{MHz}$ )	$C_J$	40	pF
<b>Reverse Recovery Time</b> ( $I_F = 500 \text{ mA}$ , $I_R = 1\text{A}$ , $I_{RR} = 0.25\text{A}$ , $T_A = 25^\circ\text{C}$ )	$t_{rr}$	5	$\mu\text{sec}$

**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"	---

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