



**Solid State Devices, Inc.**

14701 Firestone Blvd \* La Mirada, Ca 90638  
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**SPD6626 thru SPD6631  
 SPD6626SMS thru SPD6631SMS**

**2.8 - 4 AMPS,  
 200 - 1000 VOLTS  
 30 - 60 nsec  
 HYPER FAST RECOVERY  
 RECTIFIER**

- FEATURES:**
- Hyper Fast Recovery: 30 - 60 nsec maximum
  - Guaranteed High Temp. trr: 90 - 120 nsec maximum
  - PIV up to 1000 Volts
  - Low Reverse Leakage Current
  - Hermetically Sealed
  - Void Free Construction
  - For High Efficiency Applications
  - TX, TXV, and Space Level Screening Available <sup>2/</sup>
  - Replacement for 1N6626 thru 1N6631

**Designer's Data Sheet**

**Part Number/Ordering Information <sup>1/</sup>**

SPD    \_ \_ \_

    |    |    |

    |    |    | **L Screening <sup>2/</sup>**

    |    |    |    \_ = Not Screened

    |    |    |    TX = TX Level

    |    |    |    TXV = TXV

    |    |    |    S = S Level

    |    |    | **L Package Type**

    |    |    |    \_ = Axial Leaded

    |    |    |    B = Axial w/ .040" lead diameter

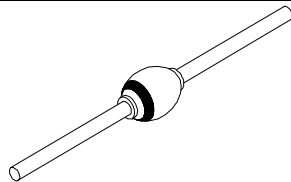
    |    |    |    SMS = Surface Mount Square Tab

**Voltage/Family**

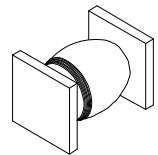
6626 = 200V	6629 = 800V
6627 = 400V	6630 = 900V
6628 = 600V	6631 = 1000V

MAXIMUM RATINGS		Symbol	Value	Units
<b>Peak Repetitive Reverse Voltage and DC Blocking Voltage</b>	SPD6626	V <sub>RRM</sub> V <sub>RWM</sub> V <sub>R</sub>	200	Volts
	SPD6627		400	
	SPD6628		600	
	SPD6629		800	
	SPD6630		900	
	SPD6631		1000	
<b>Average Rectified Forward Current</b> (Resistive Load, 60 Hz, Sine Wave) T <sub>A</sub> ≤ 55°C at .375"	SPD6626 - 6628 SPD6629 - 6631	I <sub>O</sub>	4 2.8	Amps
<b>Peak Surge Current</b> (Single 8.3 ms Pulse, Half Sine Wave, Superimposed on I <sub>O</sub> , T <sub>A</sub> ≤ 55°C)	SPD6626 - 6630 SPD6631	I <sub>FSM</sub>	75 60	Amps
<b>Operating and Storage Temperature</b>		T <sub>OP</sub> & T <sub>stg</sub>	-65 to +175	°C
<b>Maximum Thermal Resistance</b> Junction to Lead, L = 0.375" (Axial Lead) B Variant Junction to End Tab (Surface Mount)		R <sub>θJL</sub> R <sub>θJL</sub> R <sub>θJE</sub>	20 22 14	°C/W

Axial Leaded ( \_ )



Square Tab Surface Mount (SMS)



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

**DATA SHEET #: RC0113D**

**DOC**



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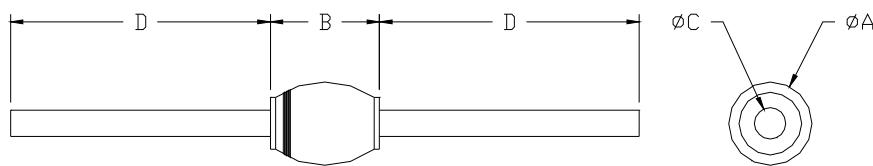
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SPD6626SMS thru SPD6631SMS**

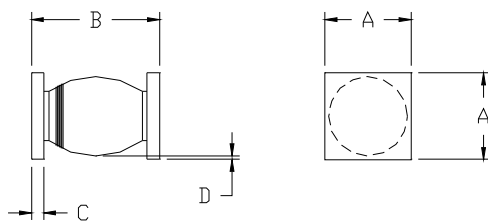
ELECTRICAL CHARACTERISTICS			Symbol	Min	Max	Unit
Instantaneous Forward Voltage Drop ( $T_A = 25^\circ\text{C}$ , 300 $\mu\text{sec}$ Pulse)	SPD6626 - SPD6628	$I_F = 2 \text{ Adc}$ $I_F = 4 \text{ Adc}$	$V_{F1}$ $V_{F2}$	— —	1.5 1.6	Vdc
	SPD6629 - SPD6630	$I_F = 1.4 \text{ Adc}$ $I_F = 3 \text{ Adc}$	$V_{F1}$ $V_{F2}$	— —	1.6 1.8	Vdc
	SPD6631	$I_F = 1.4 \text{ Adc}$ $I_F = 2 \text{ Adc}$	$V_{F1}$ $V_{F2}$	— —	1.7 1.95	Vdc
Reverse Leakage Current (At Rated $V_R$ , 300 $\mu\text{sec}$ pulse minimum)		$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$I_{R1}$ $I_{R2}$	— —	10 1000	$\mu\text{A}$
Junction Capacitance ( $V_R = 10 \text{ V}_{DC}$ , $T_A = 25^\circ\text{C}$ , $f = 1 \text{ MHz}$ )	SPD6626 SPD6627 - SPD6628		$C_J$	—	100 50	pF
Reverse Recovery Time ( $I_F = 500 \text{ mA}$ , $I_R = 1 \text{ A}$ , $I_{RR} = 250 \text{ mA}$ )		$T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	$t_{rr1}$ $t_{rr2}$	—	30 90	nsec
	SPD6629 - SPD6630	$T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	$t_{rr1}$ $t_{rr2}$	—	50 100	nsec
	SPD6631	$T_a = 25^\circ\text{C}$ $T_a = 100^\circ\text{C}$	$t_{rr1}$ $t_{rr2}$	—	60 120	nsec

**Case Outline: (Axial)**



DIM	MIN	MAX
A	—	0.165"
B	—	0.220"
C	0.047"	0.053"
C (B variant)	.038"	.042"
D	.950"	—

**Case Outline: (SMS)**



DIM	MIN	MAX
A	0.172"	0.180"
B	0.180"	0.280"
C	0.022"	0.028"
D	0.002"	—

Note: Dimensions prior to soldering.

**NOTES:**

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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