



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

SPD6626 thru SPD6631 SPD6626SMS thru SPD6631SMS

**2.8 - 4 AMPS,
 200 - 1000 VOLTS**

**30 - 60 nsec
 HYPER FAST RECOVERY
 RECTIFIER**

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SPD

— — —

L Screening ^{2/}

— = 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

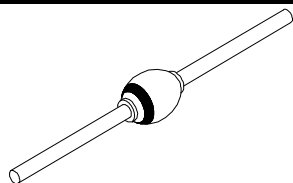
6628 = 600V 6631 = 1000V

FEATURES:

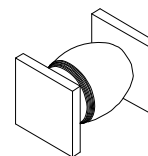
- Hyper Fast Recovery: 30 - 60 nsec maximum
- Guaranteed High Temp. trr: 90 - 120 nsec maximum
- PIV up to 1000 Volts
- Low Reverse Leakage Current
- Hermetically Sealed
- Void Free Construction
- For High Efficiency Applications
- TX, TXV, and Space Level Screening Available ^{2/}
- Replacement for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

MAXIMUM RATINGS		Symbol	Value	Units
Peak Repetitive Reverse Voltage and DC Blocking Voltage	SPD6626	V_{RRM} V_{RWM} V_R	200	Volts
	SPD6627		400	
	SPD6628		600	
	SPD6629		800	
	SPD6630		900	
	SPD6631		1000	
Average Rectified Forward Current (Resistive Load, 60 Hz, Sine Wave) $T_A \leq 55^\circ\text{C}$ at .375"	SPD6626 - 6628	I_O	4	Amps
	SPD6629 - 6631		2.8	
Peak Surge Current (Single 8.3 ms Pulse, Half Sine Wave, Superimposed on I_O , $T_A \leq 55^\circ\text{C}$)	SPD6626 - 6630	I_{FSM}	75	Amps
	SPD6631		60	
Operating and Storage Temperature		$T_{OP} \& T_{stg}$	-65 to +175	$^\circ\text{C}$
Maximum Thermal Resistance Junction to Lead, $L = 0.375$ " (Axial Lead) B Variant Junction to End Tab (Surface Mount)		$R_{\theta JL}$	20	$^\circ\text{C/W}$
		$R_{\theta JL}$	22	
		$R_{\theta JE}$	14	

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 #: RC0113F

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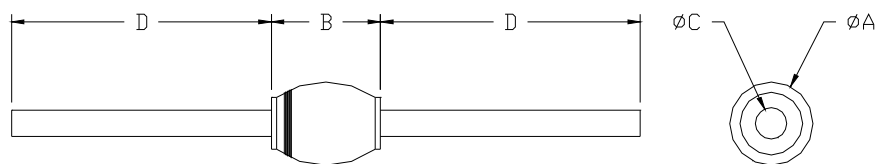
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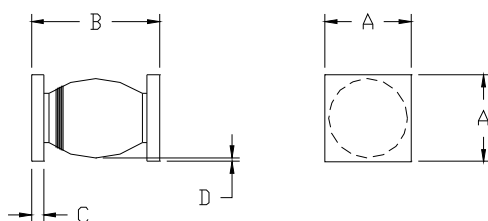
ELECTRICAL CHARACTERISTICS			Symbol	Min	Max	Unit
Instantaneous Forward Voltage Drop ($T_A = 25^\circ\text{C}$, 300 μsec Pulse)	SPD6626 - SPD6628	$I_F = 2 \text{ Adc}$ $I_F = 4 \text{ Adc}$	V_{F1} V_{F2}	— —	1.5 1.6	Vdc
	SPD6629 - SPD6630	$I_F = 1.4 \text{ Adc}$ $I_F = 3 \text{ Adc}$	V_{F1} V_{F2}	— —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