



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
Phone: (562) 404-4474 * Fax: (562) 404-1773
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SPD5711 and SPD5712

33 - 75 mA SCHOTTKY SMALL SIGNAL DIODE 16 - 50 VOLTS

Designer's Data Sheet

Part Number/Ordering Information^{1/}

SPD5711
SPD5712

Screening^{2/} = Not Screened
 TX = TX Level
 TXV = TXV Level
 S = S Level

Package = Axial
 SMS = Square Tab Surface Mount

Family/Rating SPD5711 = 50V, 33mA
 SPD5712 = 16V, 75mA

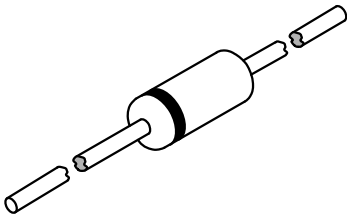
- Features:**
- Extremely Low Turn On Voltage
 - Ultra Fast Switching
 - Hermetically Sealed
 - Replacement for 1N5711 and 1N5712 with Improved Thermal Resistance
 - Primary Intended for High Level UHF/VHF Detection and Pulse Applications with a Broad Dynamic Range
 - Axial or Square Tab Surface Mount Versions Available
- TX, TXV, and S-Level Screening Available^{2/}

Maximum Ratings		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SPD5711	V_{RRM}	70	Volts
	SPD5712	V_{RWM} V_R	20	
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, $T_C = 25^\circ C$)	SPD5711	I_O	33	mAmps
	SPD5712		75	
Operating & Storage Temperature		T_{OP} & T_{STG}	-65 to+150	$^\circ C$
Maximum Thermal Resistance,	Junction to Lead, L = 3/8" (Axial)	$R_{\theta JL}$	250	$^\circ C/W$
	Junction to End Tab (SMS)	$R_{\theta JE}$	200	

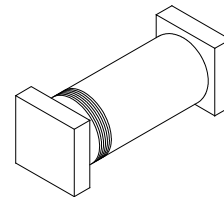
Notes:

- 1/ For ordering information, price, operating curves, and availability- Contact factory.
 2/ Screening based on MIL-PRF-19500. Screening flows available on request.
 3/ Maximum ratings and electrical characteristics @ 25°C unless otherwise specified.

Axial Package:



Square Tab Surface Mount (SMS) Package:





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**SPD5711
and
SPD5712**

Electrical Characteristics ^{3/}	Symbol	SPD5711		SPD5712		Units
		Min	Max	Min	Max	
Blocking Reverse Voltage ($I_R = 10 \mu A$, $T_A = 25^\circ C$, 300 – 500 μs Pulse)	V_{BR}	70	—	20	—	V_{DC}
Instantaneous Forward Voltage Drop ($T_A = 25^\circ C$, 300 – 500 μs Pulse)	$I_F = 1 \text{ mADC}$ V_{F1}	—	0.41	—	0.41	V_{DC}
	$I_F = 15 \text{ mADC}$ V_{F2}	—	1.0	—	—	
	$I_F = 35 \text{ mADC}$ V_{F3}	—	—	—	1.0	
Instantaneous Forward Voltage Drop ($T_A = -55^\circ C$, 300 – 500 μs Pulse)	$I_F = 1 \text{ mADC}$ V_{F4}	—	0.55	—	0.55	V_{DC}
	$I_F = 15 \text{ mADC}$ V_{F5}	—	1.0	—	—	
	$I_F = 35 \text{ mADC}$ V_{F6}	—	—	—	1.0	
Reverse Leakage Current ($T_A = 25^\circ C$, 300 μs Minimum Pulse)	IR_1	—	200	—	150	nA
Reverse Leakage Current ($T_A = 100^\circ C$, $V_R = \text{Rated}$, 300 μs Minimum Pulse)						
	IR_2	—	200	—	150	μA
Junction Capacitance ($V_R = 0 \text{ VDC}$, $V_{SIG} = 50 \text{ mV}_{PK}$, $T_A = 25^\circ C$, $f = 1 \text{ MHz}$)	C_J	—	2.0	—	2.0	pF

Axial Case Outline:

DIMENSIONS		
DIM	MIN.	MAX.
A	0.068"	0.076"
B	0.150"	0.170"
C	1.00"	1.50"
D	0.014"	0.022"

Note: Lead Diameter is not controlled within 0.050" of the diode body.

Square Tab Surface Mount (SMS) Case Outline:

DIMENSIONS		
DIM	MIN.	MAX.
A	0.080"	0.095"
B	0.205"	0.220"
C	0.022"	0.028"
D	0.001"	---