



Solid State Devices, Inc.

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**SPD5711, SPD5711A
 And
 SPD5712, SPD5712A**

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

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SPD5711
 SPD5712

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

Junction Capacitance = 2.0 pF
 A = 1.2 pF

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
 - TX, TXV, and S-Level Screening Available ^{2/}
 - A Suffix = Selection for Low Cj- 1.2pF Max

Maximum Ratings ^{3/}		Symbol	Value	Units
Peak Repetitive Reverse and DC Blocking Voltage	SPD5711 SPD5712	V_{RRM} V_{RWM} V_R	50 15	Volts
Average Rectified Forward Current (Resistive Load, 60 Hz Sine Wave, T _C = 25 °C)	SPD5711 SPD5712	I_O	33 75	mAmps
Operating & Storage Temperature		T _{OP} & T _{STG}	-65 to+150	°C
Maximum Thermal Resistance, Junction to Lead, L = 3/8"		R _{θJL}	250	°C/W

Notes:
 1/ For ordering information, Price, Operating Curves, and Availability- Contact Factory.
 2/ Screened to MIL-PRF-19500.
 3/ Maximum Ratings and Electrical Characteristics @ 25°C Unless Otherwise Specified.



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**SPD5711, SPD5711A
 And
 SPD5712, SPD5712A**

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 ($T_A = 25^\circ C$, $V_R = \text{Rated}$, 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 ($V_R = 0 \text{ VDC}$, $V_{SIG} = 50 \text{ mV}_{PK}$, $T_A = 25^\circ C$, $f = 1 \text{ MHz}$)	SPD5711 and SPD5712 C_{J1}	—	2.0	—	2.0	pF
	SPD5711A and SPD5712A C_{J2}	—	1.2	—	1.2	

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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.