



Solid State Devices, Inc.

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SPD3126 Series

HIGH VOLTAGE

1.0 AMP

2.5 kV MIN

Standard/ Fast / UltraFast Recovery Rectifier

Designer's Data Sheet

Part Number/Ordering Information ^{1/}

SPD3126 _ _ _

L Screening ^{2/}

_ = Not Screened
TX = TX Level
TXV = TXV
S = S Level

L Package Type

_ = Axial Leaded
SMS = Surface Mount Square Tab

Recovery Time ^{4/}

_ = Standard Recovery (5000 ns)
F = Fast (250 ns)
UF = Ultrafast (70 ns)

FEATURES:

- PIV 2.5 kV MIN
- Hermetically Sealed
- Single Chip Construction
- For High Voltage Applications
- Available in Axial & Square Tab Versions
- TX, TXV, and S-Level Screening Available ^{2/}
- Replacement for High Voltage Multijunction Devices

MAXIMUM RATINGS ^{3/}

RATING	SYMBOL	Recovery Time			UNIT
		Std	Fast	UF	
Peak Repetitive Reverse Voltage And DC Blocking Voltage	SPD3126 V_{RRM} V_R	2500	2500	2500	Volts
Average Rectified Forward Current (L = 1/8", Resistive Load, 60Hz, Sine Wave, T _A = 25°C)	I_O	1.0	0.8	0.7	Amps
Peak Surge Current (8.3ms pulse, half sine wave superimposed on I _o , allow junction to reach equilibrium between pulses, T _A = 25°C)	I_{FSM}	40	28	20	Amps
Operating & Storage Temperature	T _J and T _{STG}	-65 to +175			°C
Thermal Resistance	Junction to Lead for Axial, L = .375"	$R_{\theta JL}$			°C/W
	Junction to End Tab for Surface Mount	$R_{\theta JE}$			

NOTES:

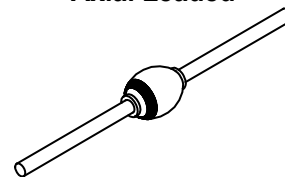
^{1/} For Ordering Information, Price, Operating Curves, and Availability- Contact Factory.

^{2/} Screening Based on MIL-PRF-19500. Screening Flows Available on Request.

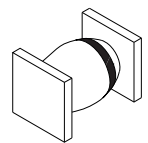
^{3/} Unless Otherwise Specified, All Electrical Characteristics @25°C.

^{4/} I_F = 500mA, I_R = 1A, I_{RR} = 250mA, T_A = 25°C

Axial Leaded



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 #: RC0110B

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SPD3126 and SPD3126SMS

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ELECTRICAL CHARACTERISTICS ^{3/}		Recovery Time			UNIT	
		Std	Fast	uf		
CHARACTERISTICS		SYMBOL				
Maximum Instantaneous Forward Voltage Drop (T _A = 25°C, pulsed)	I _F = 0.5 Adc	V _{F1}	1.9	3.6	5.2	Vdc
	I _F = 1.0 Adc	V _{F2}	2.1	4.8	6.8	
Maximum Reverse Leakage Current (V _R = 2.2kV)	(T _A = +25°C)	I _{R1}	1.0	2.0	4.0	μA
	(T _A = +100°C)	I _{R2}	100	150	300	μA
Maximum Junction Capacitance f = 1MHz, T _A = 25°C	V _R = 10V	C _J	12	12	12	pF
	V _F = 100V		8	8	8	
Maximum Reverse Recovery Time I _F = 500mA, I _R = 1A, I _{RR} = 250mA, T _A = 25°C		t _{rr}	5000	250	70	ns
Minimum Breakdown Voltage (I _R = 50μA)		B _{VR}	2.5	2.5	2.5	kV

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/ Unless Otherwise Specified, All Electrical Characteristics @25°C.
- 4/ I_F = 500mA, I_R = 1A, I_{RR} = 250mA, T_A = 25°C

Package Outlines:

DIMENSIONS (inches)			DIMENSIONS (inches)		
DIM.	Minimum	Maximum	DIM.	Minimum	Maximum
A	.110	.132	A	.134	.140
B	.150	.170	B	.200	.225
C	.027	.033	C	.022	.028
D	1.00	---	D	.001	---

AXIAL	SMS

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