



Solid State Devices, Inc.

14701 Firestone Blvd * La Mirada, Ca 90638
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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

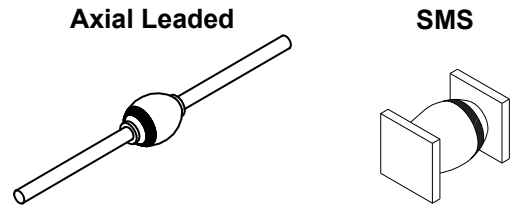
- Screening ^{2/}**
 - = Not Screened
 - TX = TX Level
 - TXV = TXV
 - S = S Level
- Package Type**
 - = Axial Leaded
 - SMS = Surface Mount Square Tab
- Recovery Time ^{4/}**
 - = Standard Recovery (5000 ns)
 - F = Fast (250 ns)
 - UF = Ultrafast (70 ns)

- 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/}		Recovery Time			
		Std	Fast	UF	UNIT
RATING	SYMBOL	Std	Fast	UF	UNIT
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" Junction to End Tab for Surface Mount	$R_{\theta JL}$ $R_{\theta JE}$	38 25	°C/W	

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





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 _V R	2.5	2.5	2.5	kV

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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

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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