

SPD82581B

1-Line, 600W, TVS

[Http://www.sh-willsemi.com](http://www.sh-willsemi.com)

Descriptions

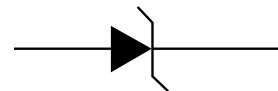
SPD82581B protect sensitive electronics against voltage transients induced by inductive load switching and lightning. Ideal for the protection of I/O interfaces, V_{CC} bus and other integrated circuits.



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Features

- For surface mount application
- Excellent clamping capability
- Low profile package
- Fast response time: Typically less than 1.0ps from 0V to 64.4V
- Low inductance
- GPP



SPD82581B

Mechanical Data

- Case: Molded plastic
- Mounting position: Any
- Weight: 0.093 grams

Schematic Diagram

Order information

Device	Dim (mm)	Shipping
SPD82581B-2/TR	5.3*3.5*2.3	3000/Tape&Reel

Rating	Symbol	Value	Units
Peak Pulse Power on 10/1000 μ s waveform	P_{PPM}	600	W
Peak Pulse Current of on 10/1000 μ s waveform	I_{PPM}	6.4	A
Peak Forward Surge Current , 8.3ms Single Half Sine-wave Superimposed on Rated Load,(JEDEC Method)	I_{FSM}	100	A
Operating Junction Temperature Range	T_J	-55 to +150	$^{\circ}$ C
Storage Temperature Range	T_{STG}	-55 to +150	$^{\circ}$ C

Notes :

1. Mounted on 5.0mm² (0.03mm thick) Copper Pads to each teminal

Absolute maximum ratings

Part Number	Reverse Stand off Voltage V_R (V)	Breakdown Voltage $V_{BR}@ I_T$ (V)		Test Current I_T (mA)	Maximum Clamping Voltage V_C @ I_{PP} (V)	Maximum Peak Pulse Current I_{PP} (A)	Maximum Reverse Leakage $I_R @ V_R$ (μA)
		MIN	MAX				
SPD82581B	58	64.4	74.1	1	93.6	6.4	5

Typical characteristics ($T_A=25^\circ C$, unless otherwise noted)

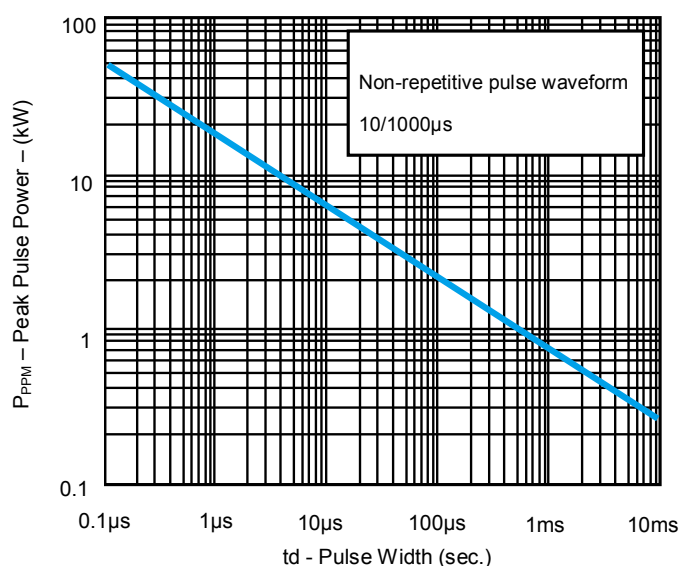


Fig. 1 Peak Pulse Power

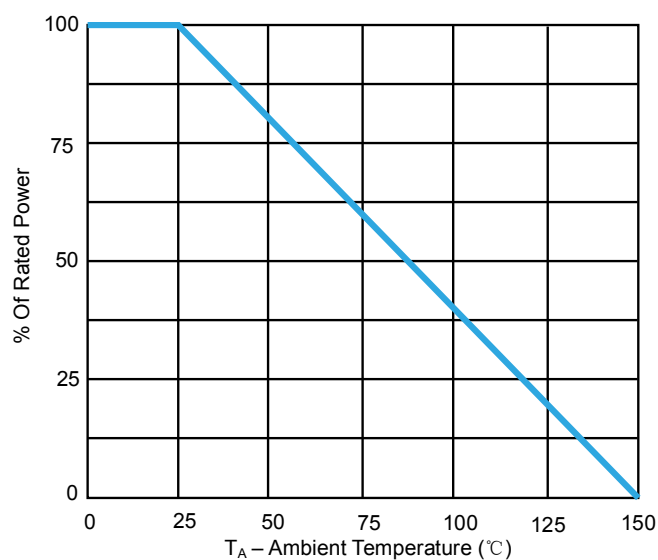
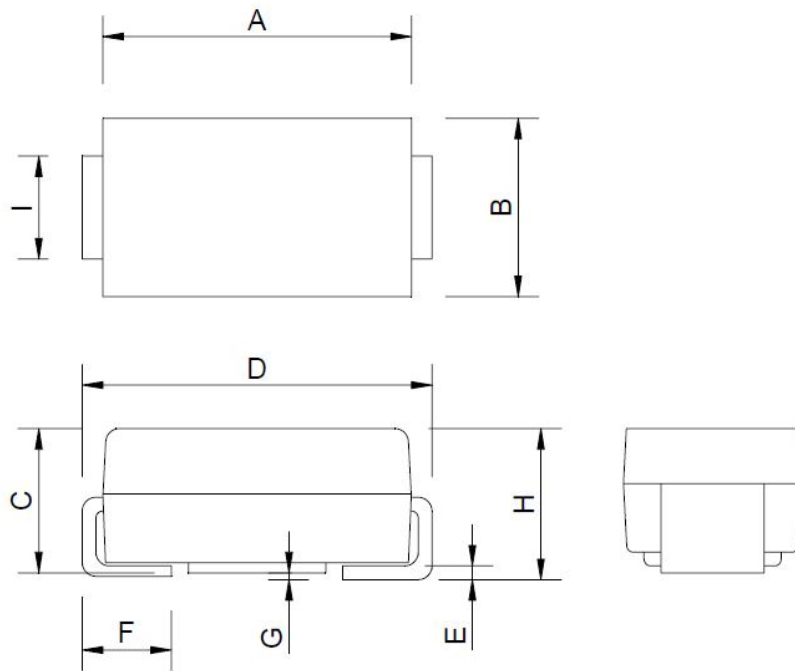
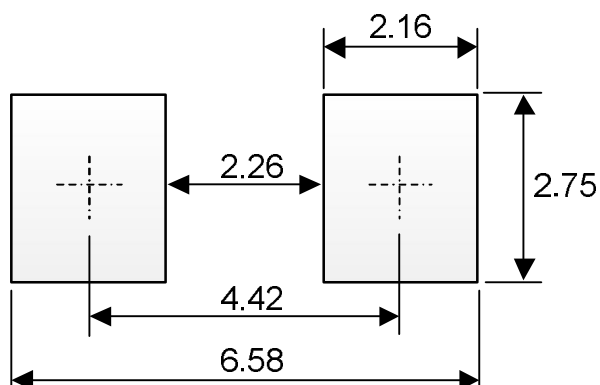


Fig. 2 Pulse Derating Curve

Package outline dimensions (Unit:mm)
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Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	4.06	--	4.58
B	3.30	--	3.95
C	2.00	--	2.30
D	5.05	--	5.60
E	0.15	--	0.30
F	0.75	--	1.50
G	0.00	--	0.20
H	2.00	--	2.50
I	1.95	--	2.25

Recommend land pattern (Unit: mm)


*Note: This land pattern is for your reference only.
Actual pad layouts may vary depending on application.*