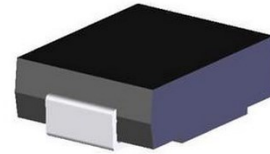


**SPD84581C**

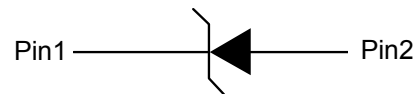
1-Line, 3000W, TVS

<http://www.sh-willsemi.com>
**Descriptions**

SPD84581C 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.


**SMC**
**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


**Schematic Diagram**
**Mechanical Data**

- Case: Molded plastic
- Mounting position: Any
- Weight: 0.21 grams



XXXX = Data code  
HGG = Device code

**Marking (Top View)**
**Order information**

Device	Package	Shipping
SPD84581C-2/TR	SMC	3000/Tape&Reel

**Absolute maximum ratings**

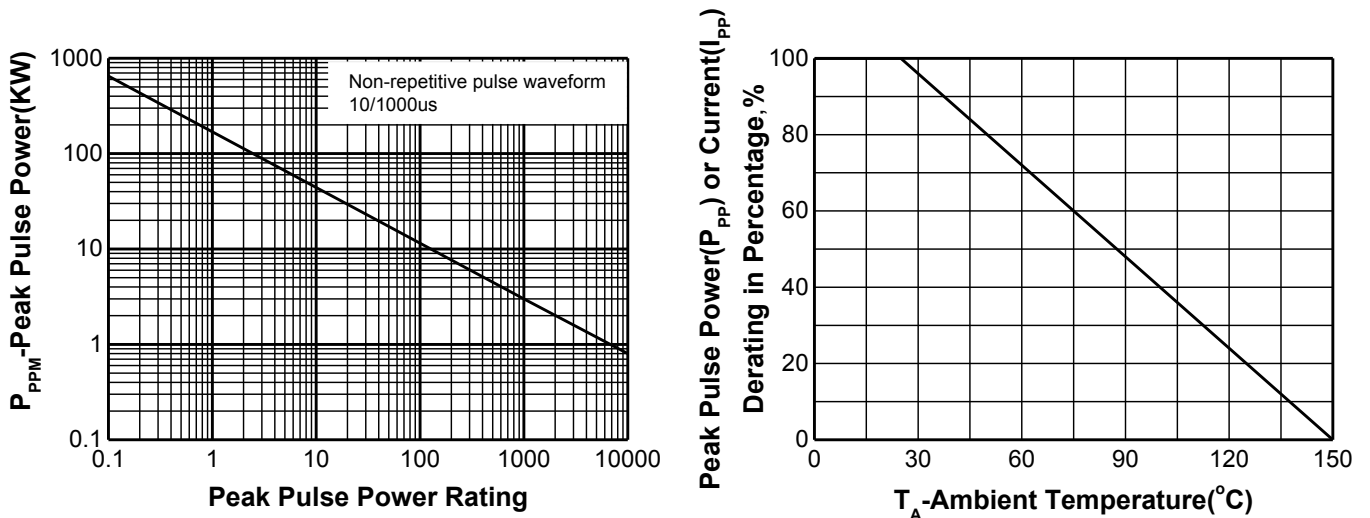
Rating	Symbol	Value	Units
Peak Pulse Power on 10/1000μs waveform	P <sub>PPM</sub>	3000	W
Peak Pulse Current of on 10/1000μs waveform	I <sub>PPM</sub>	32.1	A
Junction temperature	T <sub>J</sub>	-55~150	°C
Operating temperature	T <sub>OP</sub>	-40~125	°C
Storage Temperature Range	T <sub>STG</sub>	-55~150	°C

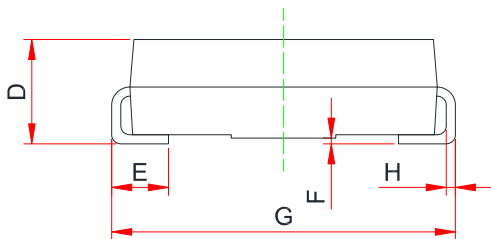
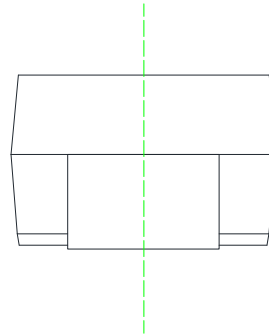
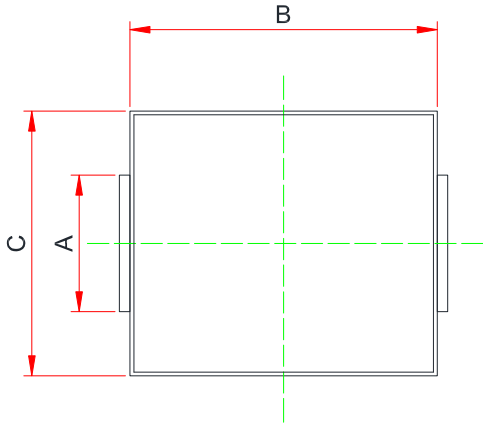
Notes:

1. Mounted on 5.0mm<sup>2</sup> (0.03mm thick) Copper Pads to each terminal.

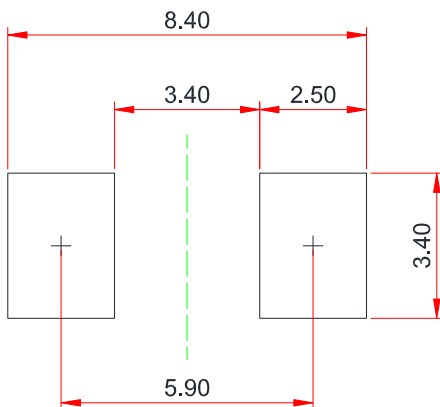
**Electrical characteristics (T<sub>A</sub>=25°C, unless otherwise noted)**

Part Number	Reverse Stand off Voltage V <sub>R</sub> (V)	Breakdown Voltage V <sub>BR</sub> @ I <sub>T</sub> (V)		Test Current I <sub>T</sub> (mA)	Maximum Clamping Voltage V <sub>C</sub> @I <sub>PP</sub> (V)	Maximum Peak Pulse Current I <sub>PP</sub> (A)	Maximum Reverse Leakage I <sub>R</sub> @ V <sub>R</sub> (μA)
		MIN	MAX				
SPD84581C	58	64.4	74.1	1	93.6	32.1	2

**Typical characteristics (T<sub>A</sub>=25°C, unless otherwise noted)**


**Package outline dimensions (Unit: mm)**
**SMC**


Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	2.900	--	3.200
B	6.600	--	7.110
C	5.590	--	6.220
D	2.060	--	2.620
E	0.760	--	1.520
F	-	--	0.203
G	7.750	-	8.130
H	0.125	--	0.305

**Recommended land pattern (Unit: mm)**


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

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