

**SPD83241C**

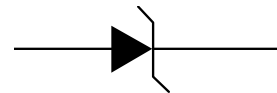
1-Line, 1500W, TVS

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

SPD83241C 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 24V
- Low inductance
- GPP


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

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



XXXX = Date code

GEZ = Device code

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

Device	Dim (mm)	Shipping
SPD83241C-2/TR	7.8*5.8*2.3	3000/Tape&Reel

**Absolute maximum ratings**

Rating	Symbol	Value	Units
Peak Pulse Power on 10/1000µs waveform	P <sub>PPM</sub>	1500	W
Peak Pulse Current of on 10/1000µs waveform	I <sub>PPM</sub>	38.6	A
Peak Forward Surge Current , 8.3ms Single Half Sine-wave Superimposed on Rated Load,(JEDEC Method)	I <sub>FSM</sub>	200	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 :

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

**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@ I<sub>T</sub></sub> (V)		Test Current I <sub>T</sub> (mA)	Maximum Clamping Voltage V <sub>C @I<sub>PP</sub></sub> (V)	Maximum Peak Pulse Current I <sub>PP</sub> (A)	Maximum Reverse Leakage I <sub>R @ V<sub>R</sub></sub> (µA)
		MIN	MAX				
SPD83241C	24	26.7	30.7	1	38.9	38.6	1

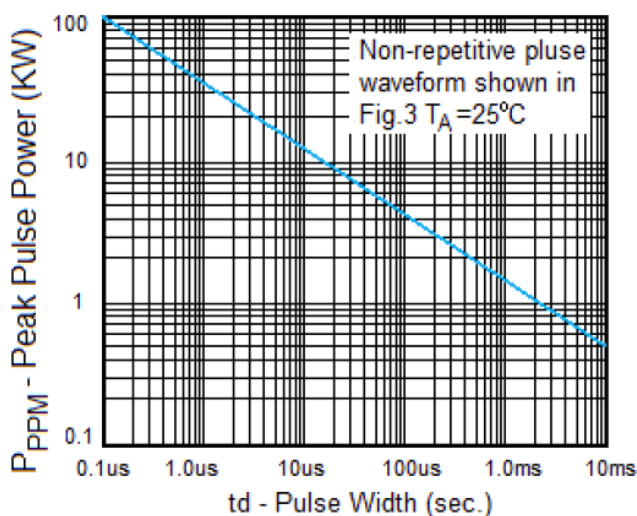
**Typical characteristics (T<sub>A</sub>=25°C, unless otherwise noted)**


Fig. 1 Peak Pulse Power Rating

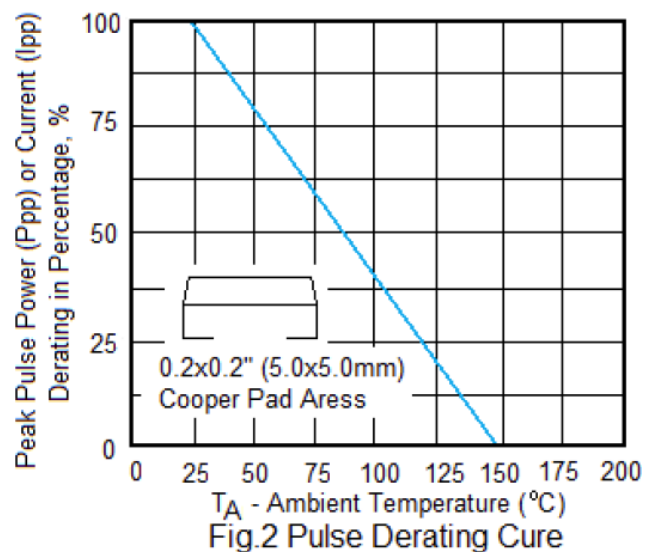
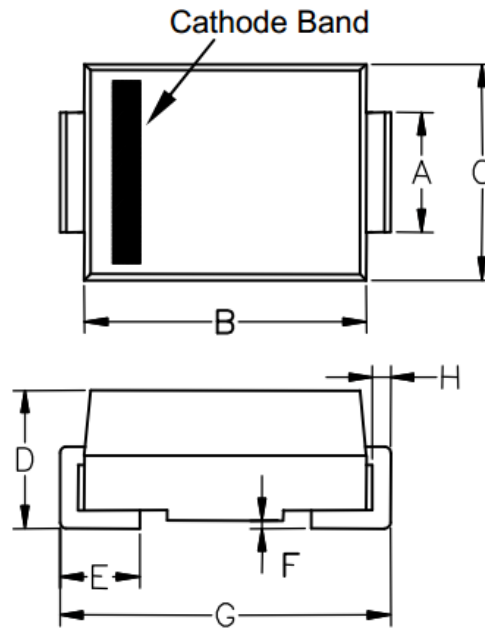
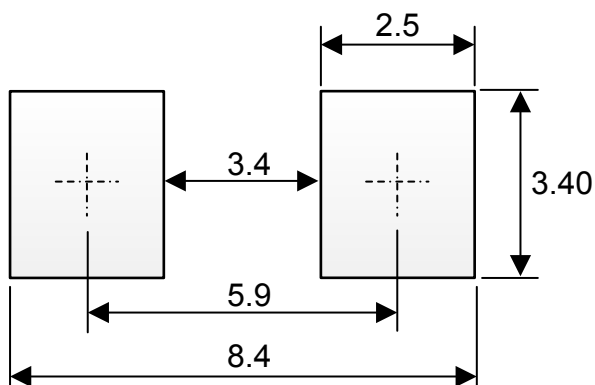


Fig.2 Pulse Derating Curve

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


Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	2.86	--	3.160
B	6.520	--	7.020
C	5.520	--	6.150
D	1.980	--	2.590
E	0.750	--	1.510
F	-	--	0.203
G	7.640	-	8.020
H	0.152	--	0.305

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


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