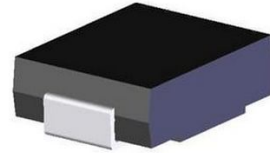


**SPD83201C**

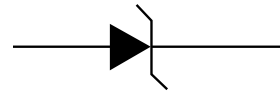
1-Line, 1500W, TVS

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

SPD83201C protect sensitive electronics against voltage transients induced by inductive load switching and lightning. Ideal for the protection of I/O interfaces, V<sub>CC</sub> 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 22.2V
- Low inductance
- GPP



SPD83201C

**Mechanical Data**

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

**Schematic Diagram**
**Order information**

Device	Dim (mm)	Shipping
SPD83201C-2/TR	7.8*5.8*2.3	3000/Tape&Reel

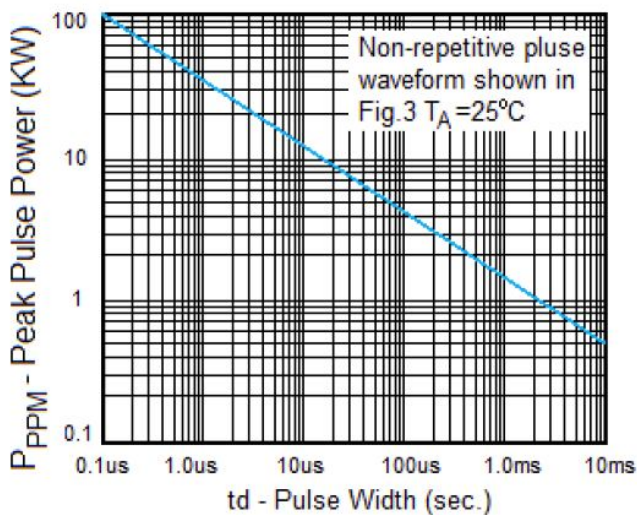
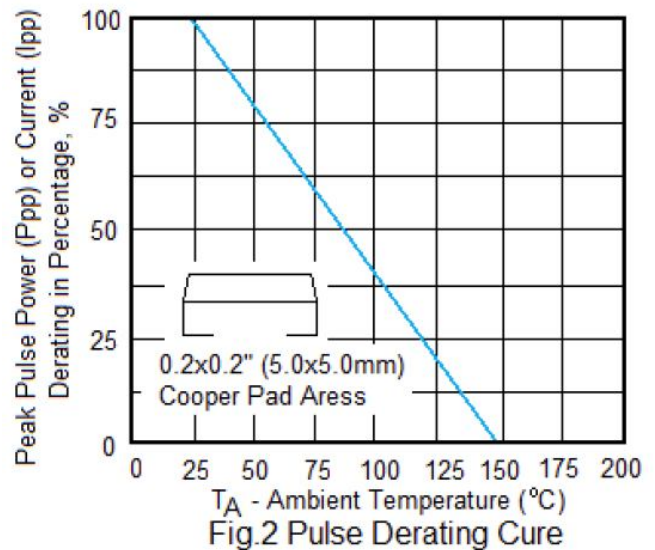
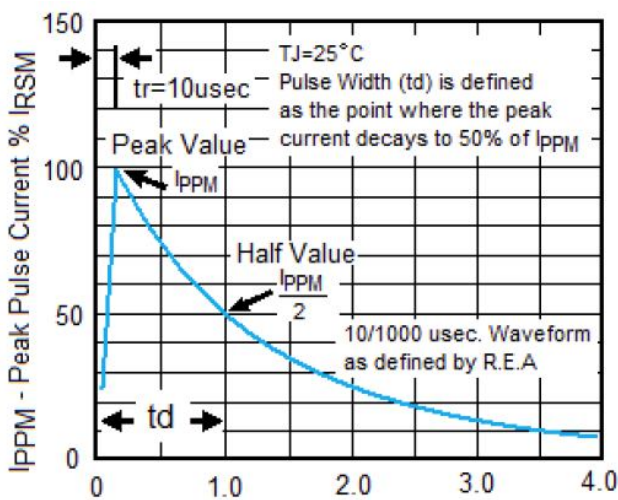
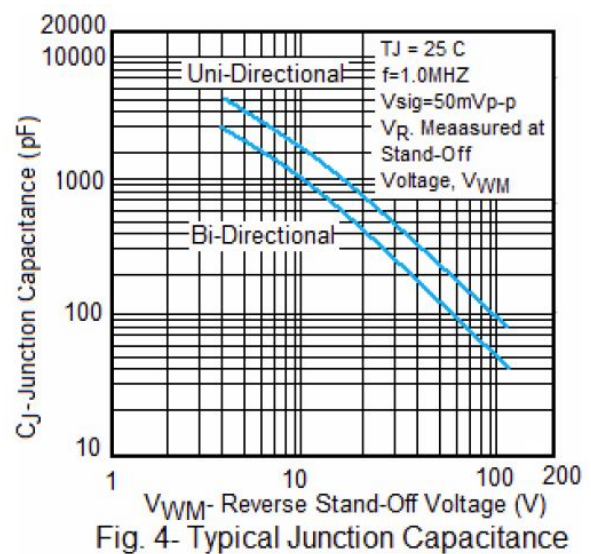
Rating	Symbol	Value	Units
Peak Pulse Power on 10/1000μs waveform	P <sub>PPM</sub>	1500	W
Peak Pulse Current of on 10/1000μs waveform	I <sub>PPM</sub>	46.3	A
Peak Forward Surge Current , 8.3ms Single Half Sine-wave Superimposed on Rated Load,(JEDEC Method)	I <sub>FSM</sub>	200	A
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

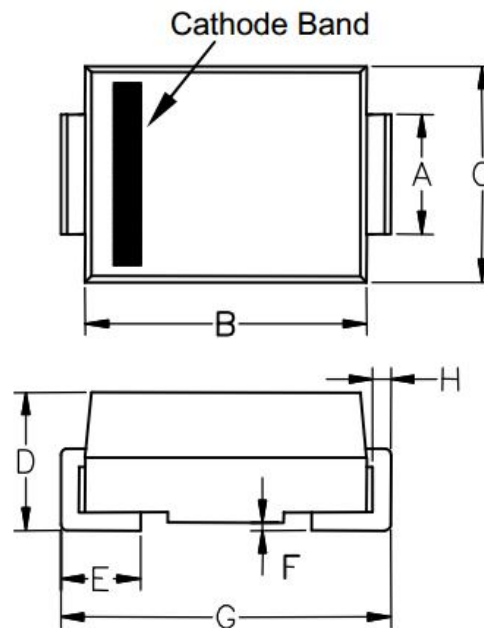
Notes :

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

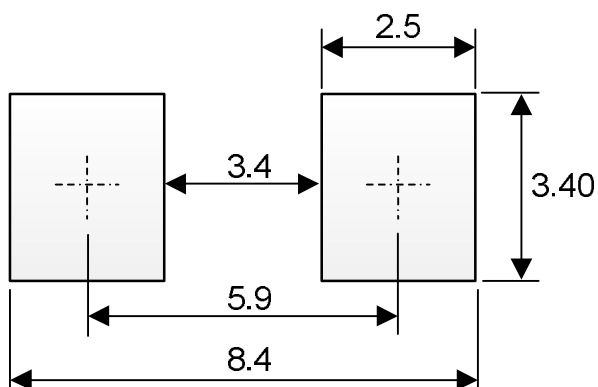
**Absolute maximum ratings**

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 $I_R @ V_R$ ( $\mu A$ )
		MIN	MAX				
SPD83201C	20	22.2	25.5	1	32.4	46.3	5

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

**Fig. 1 Peak Pulse Power Rating**

**Fig.2 Pulse Derating Curve**

**Fig.3 Pulse Waveform**

**Fig. 4- Typical Junction Capacitance**

**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.*