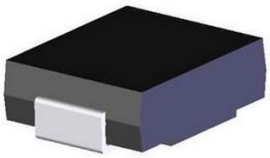
SPD83582C

1-Line, 1500W, TVS

Http//:www.sh-willsemi.com

Descriptions

SPD83582C 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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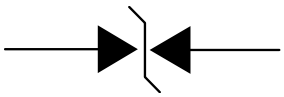
Features

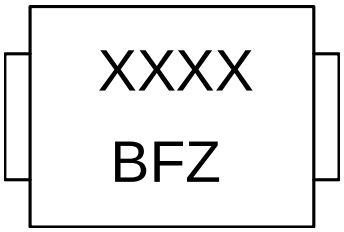
- For surface mount application
- Excellent clamping capability
- Low profile package
- Fast response time: Typically less than 1.0ps from 0V to 64.4V
- Low inductance
- GPP



Schematic Diagram

Mechanical Data

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



XXXX = Date code

BFZ = Device code

Marking (Top View)

Order information

Device	Package	Shipping
SPD83582C-2/TR	SMC	3000/Tape&Reel

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)	C_J 1)
		MIN	MAX					pF
								Typ.
SPD83582C	58	64.4	74.1	1	93.6	16.0	5	530

Notes:

1) Off-state capacitance is measured at f = 1MHz, V_{DC} = 0V.

Thermal considerations

Rating	Symbol	Value	Units
Peak Pulse Power on 10/1000μs waveform	P_{PPM}	1500	W
Peak Pulse Current of on 10/1000μs waveform	I_{PPM}	16.0	A
Operating Junction Temperature Range	T_J	-55 to +150	℃
Storage Temperature Range	T_{STG}	-55 to +150	℃

Notes:

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

Typical characteristics (T_A=25°C, unless otherwise noted)

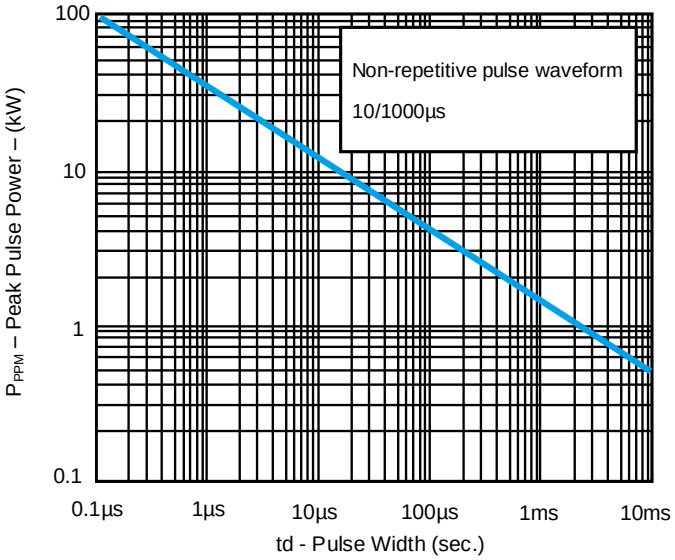


Fig. 1 Peak Pulse Power

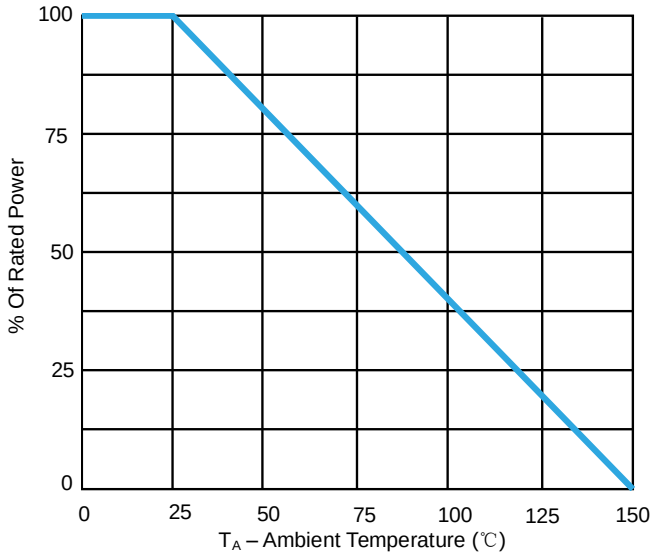
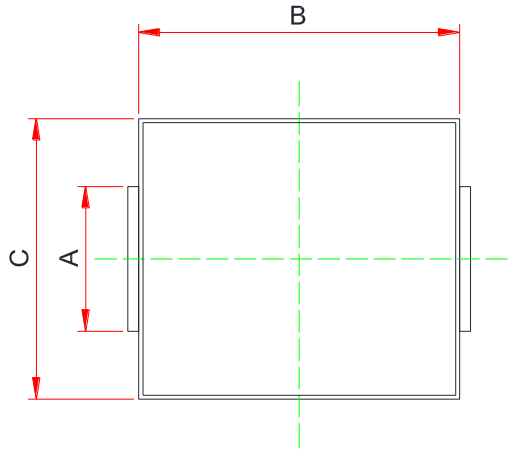
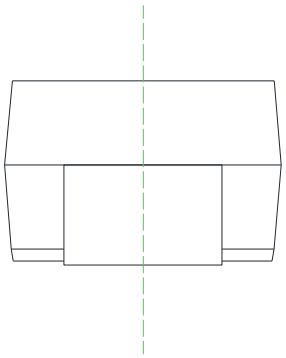


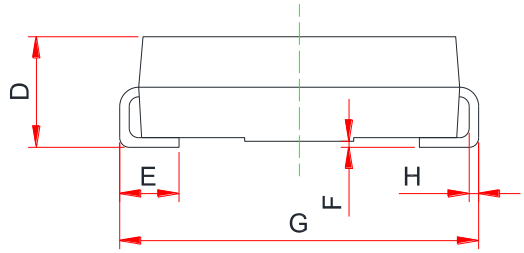
Fig. 2 Pulse Derating Curve

Package outline dimensions (Unit:mm)

SMC

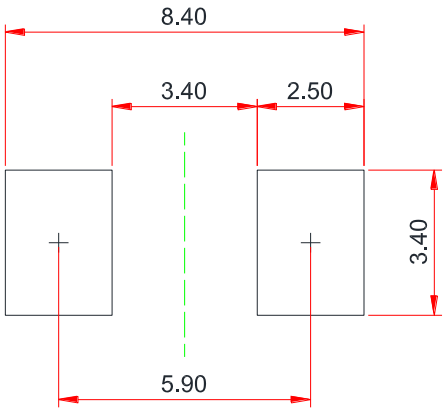






Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	2.86	--	3.160
B	6.520	--	7.020
C	5.520	--	6.150
D	1.980	--	2.590
E	0.750	--	1.510
F	-	--	0.203
G	7.640	-	8.020
H	0.152	--	0.305

Recommend land pattern (Unit: mm)



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