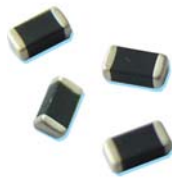
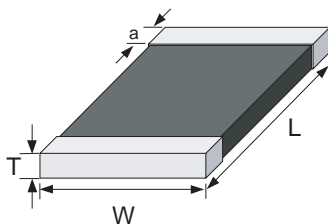


ESD Series SMD

This product is not recommended for new designs. Please refer to Littelfuse series MLE.



Dimensions



Multilayer Ceramic Transient Voltage Suppressors for ESD Protection

Features

Thin layer, high precise techniques
Lead free
Bi-directional clamping
Ultra low capacity
Available with Nickel/Tin end termination

Applications

Circuit board and ESD, EFT
Protection of:

- USB ports
- Keyboards
- Cellular Phones
- IEEE ports
- PDA/Handheld
- Sensors

WebLinks

Further info see:

www.wickmann.com

Further technical info see technical varistor file:

www.wickmann.com/download/techvaristor.pdf

Specifications

Packaging

Tape and Reel		
T 7 inch reel	0402	(10.000 pcs.)
	0603	(4.000 pcs.)
	0805-1206	(3.000 pcs.)

Material

Body: Ceramic (ZnO)
Terminals: Ni/Sn plated (code "P")
Ag/Pt/Pd non plated (code "N" on request)

Operating Temperature

-55 to +125°C

Solderability

acc. to IEC 60068-2-58
235°C, 2s

Soldering Heat Resistance

260°C, 10 sec. (IEC 60068-2-58)
280°C, 5 sec. (IEC 60068-2-58)

Temperature coefficient (αV) of clamping voltage (Vc) @ specified test current

<0.01%/°C

Standards

IEC 61000-4-2
MIL-STD-883C

Maximum Ratings (125°C)							Specifications (25°C)			
Type	Packaging	max. cont. working voltage	max. non-repetitive surge current (8/20 μs)	max. non-repetitive surge energy (10/1000 μs)	max. ESD clamping voltage 8kV contact	max. clamping voltage at spec. current (8/20 μs)	nominal voltage at 1mA (DC) test current	typ. capacitance at 1MHz	typ. inductance	
		$V_{M(DC)}$ (V)	I_{TM} (A)	W_{TM} (J)	V_c (note 2)	V_c (V) V_c (V)	$V_{N(DC)min.}$ (V) $V_{N(DC)max.}$ (V)	$C_{typ.}$ (pF)	$L_{typ.}$ (nH)	
WE0402ML180L		18,0	15	0,03	120	50 1A	22 28	30	1,0	
WE0402ML180A		18,0	15	0,03	120	50 1A	22 28	40	1,0	
WE0603ML180L		18,0	20	0,05	120	50 1A	22 28	40	1,0	
WE0603ML180A		18,0	20	0,05	120	50 2A	22 28	100	1,0	
WE0805ML180L		18,0	30	0,10	100	50 2A	22 28	100	1,0	
WE0805ML180A		18,0	30	0,10	100	50 5A	22 28	500	1,0	
WE1206ML180L		18,0	30	0,10	80	50 5A	22 28	500	1,0	
WE1206ML180A		18,0	30	0,10	80	50 10A	22 28	800	1,0	

Maximum Leakage $V_{M(DC)}$								
	WE0402ML180L	WE0402ML180A	WE0603ML180L	WE0603ML180A	WE0805ML180L	WE0805ML180A	WE1206ML180L	WE1206ML180A
	μA	μA	μA	μA	μA	μA	μA	μA
3.5V	0.08	0.08	0.08	0.08	0.15	0.15	0.3	0.3
5.5V	0.2	0.2	0.2	0.2	0.3	0.3	0.8	0.8
15V	1.5	1.5	3.0	3.0	3.0	3.0	3.0	3.0
18V	6.0	6.0	15.0	15.0	15.0	15.0	15.0	15.0

Note 1: For applications of 18V_{M(DC)} or less higher voltages. Please contact WICKMANN for availability.

Note 2: Maximum ESD clamping voltage tested with IEC 61000-4-2 Human Body Model discharge test circuit and direct discharge to device terminals

Note 3: Capacitance may be customized, please contact WICKMANN for availability.

Order Information

Qty.	Order-Number	Type	Terminal Code	Packaging
		WE0402ML180	L	P
			P	T

Specifications are subject to change without notice

ESD Series SMD

