



Multilayer Varistor

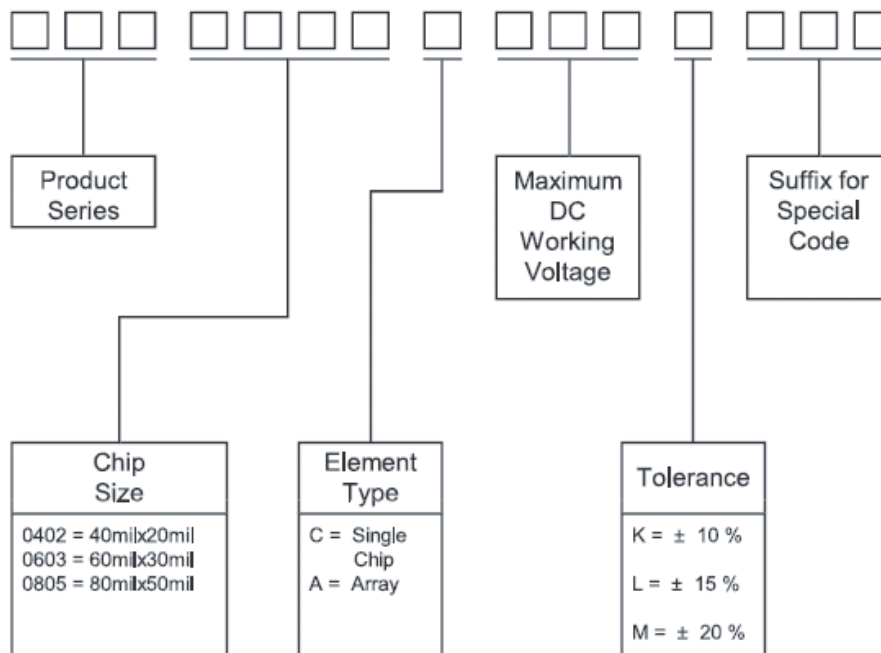
Features

- Multilayer Fabrication Technology
- Wide Operating Voltage Range, Vdc from 5.5V to 120V
- Low Capacitance Types available for high-speed signal line
- Very fast response time
- With insulation coating guarantee non-flammability rating
- Bi-directional Clamping characteristic
- Nickel / Tin plated Termination guarantee excellent soldering ability

Application

- Provides Circuit Board Transient Voltage Protection for ICs and Transistors
- Protection from ESD for Cellular phone, PDA, Note Book
- Protection from ESD for PC board, VGA Card, Modem, DSC...

How To Order

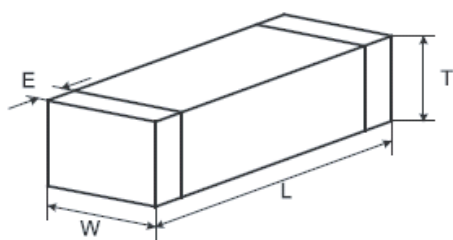


Surge Suppressors 0603 Series

Type	Maximum Operation Voltage		Maximum Surge Current (8/20 μ s)	Maximum Absorption Energy (10/1000 μ s)	Maximum Clamping Voltage (8/20 μ s)		Varistor Breakdown Voltage (1 mA)		Capacitance Typical	
	Vw				Vc	Vb	Cp			
Symbol	Vdc	Vrms	Ipeak	E	V	A	Vb (Min.)	Vb (Max.)	1KHz pF	1MHz pF
0603S05M	5.5	4	30	0.1	19	2	6.4	9.6	290	230
0603S09M	9	6.5	30	0.1	27	2	11	15	230	180
0603S12L	12	9	30	0.1	32	2	13	17.5	200	150
0603S14K	14	11	30	0.1	35	2	16.2	19.8	160	120
0603S18K	18	14	30	0.1	40	2	21	26	140	110
0603S26K	26	20	30	0.1	58	2	29.7	36.3	110	85
0603S30K	30	25	30	0.1	65	2	35	43	90	70

- Vb— Voltage across the device measured at 1mA DC current
- Vc— Maximum peak current across the varistor with 8/20us waveform and 1A pulse current
- Cp— Device capacitance measured with zero volt bias 1Vrms

Dimension



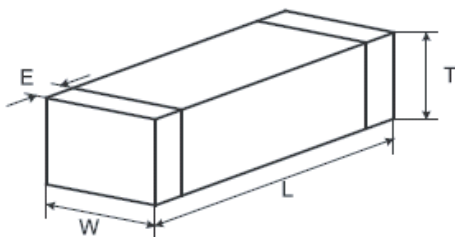
	mm	inch
L	1.60±0.15	0.063±0.006
W	0.80±0.15	0.032±0.004
E	0.30±0.15	0.012±0.006
Tmax	0.95	0.036

Surge Suppressors 0805 Series

Type	Maximum Operation Voltage		Maximum Surge Current (8/20 μ s)	Maximum Absorption Energy (10/1000 μ s)	Maximum Clamping Voltage (8/20 μ s)		Varistor Breakdown Voltage (1 mA)		Capacitance Typical	
	Vw				Vc	Vb	Cp			
Symbol	Vdc	Vrms	Ipeak	E	V	A	Vb (Min.)	Vb (Max.)	1KHz pF	1MHz pF
0805S05M	5.5	4	40	0.1	17	2	6.4	9.6	860	690
0805S09M	9	6.5	40	0.1	25	2	11	15	550	430
0805S12L	12	9.0	40	0.1	30	2	13	17.5	400	312
0805S14K	14	11	40	0.1	33	2	16.2	19.8	320	250
0805S18K	18	14	40	0.1	40	2	21	26	280	218
0805S26K	26	20	40	0.1	58	2	29.7	36.3	160	125
0805S30K	30	25	40	0.1	65	2	35	43	120	95

- Vb – Voltage across the device measured at 1mA DC current
- Vc – Maximum peak current across the varistor with 8/20us waveform and 1A pulse current
- Cp – Device capacitance measured with zero volt bias 1Vrms

Dimension



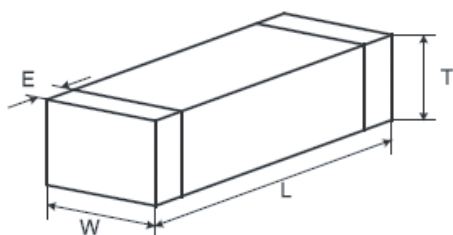
	mm	inch
L	2.00±0.20	0.079±0.008
W	1.25±0.20	0.049±0.008
E	0.50±0.25	0.020±0.010
Tmax	1.10	0.044

ESD-EMI Guard 0402 Series

Type	Maximum Operation Voltage		Power Dissipation	Maximum Clamping Voltage (8/20 μ s)		Capacitance Typical (1MHZ)
	Vw			Vc		
Symbol	Vw		P	Vc		Cp
Units	Vdc	Vrms	W	V	A	pF
0402B05M100	5.5	4.0	>300	34	1	10
0402B05M150	5.5	4.0	>300	32	1	15
0402B05M220	5.5	4.0	>300	30	1	22
0402B05M330	5.5	4.0	>300	28	1	33
0402B05M470	5.5	4.0	>300	26	1	47
0402B05M101	5.5	4.0	>300	22	1	100
0402B05M181	5.5	4.0	>300	20	1	180

Cp - Device capacitance measured with zero volt bias 1Vrms

Dimension



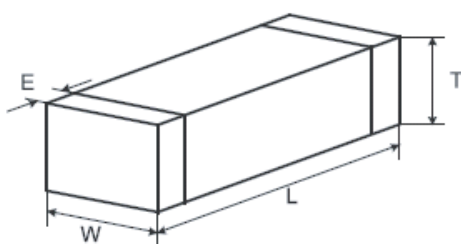
	mm	inch
L	1.00±0.10	0.040±0.004
W	0.50±0.10	0.020±0.004
E	0.25±0.15	0.010±0.006
Tmax	0.60	0.024

ESD-EMI Guard 0603 Series

Type	Maximum Operation Voltage		Power Dissipation	Maximum Clamping Voltage (8/20 μ s)		Capacitance Typical (1MHZ)
Symbol	Vw		P	Vc		Cp
Units	Vdc	Vrms	W	V	A	pF
0603B05M100	5.5	4.0	>400	34	1	10
0603B05M150	5.5	4.0	>400	32	1	15
0603B05M220	5.5	4.0	>400	30	1	22
0603B05M330	5.5	4.0	>400	28	1	33
0603B05M470	5.5	4.0	>400	26	1	47
0603B05M101	5.5	4.0	>400	22	1	100
0603B05M181	5.5	4.0	>400	20	1	180

Cp - Device capacitance measured with zero volt bias 1Vrms

Dimension



	mm	inch
L	1.60±0.15	0.063±0.006
W	0.80±0.15	0.032±0.004
E	0.30±0.15	0.012±0.006
Tmax	0.95	0.036