

Chip MLV (MLVC)

Surface mount multilayer varistors (MLV) provides ESD, EFT, load switching and induced lightning protection

Product Description

Multilayer varistors in 12 different footprints from 0402 up to 4032 with high energy absorption for broad overvoltage protection

Features & Benefits

- Standard versions available from 0402 up to 1206 footprints, up to 68 Vdc working voltage and 35 A peak current ratings
- High Energy versions available from 0805 up to 4032 footprints, up to 200 Vdc working voltage and 1200A peak current ratings
- Inherently bi-directional construction and performance



Applications

- **Computing:** networking equipment, telecom lines, Vbus and Vdc ports in communication lines, I/O data ports
- **Industrial:** key pads, audio ports, LED lighting, power supplies, security cameras, PLCs and control PCBAs
- **Consumer:** handheld electronics, mobile devices and wearables, set top boxes, touch pads, I/O data ports

Competition: TDK-EPCOS, Littelfuse, AVX, Bourns (Keko-Varicon), Amotech, Inpaq

MLV Product Matrix

	Package size	Working Voltage (Vdc)	Clamping Voltage (V)	Capacitance typical (pF)	Peak Current (8/20 µs)
MLVC Standard	0402	12 to 18	34 to 44	90 to 150 pF	20 A
	0603	12 to 33	34 to 79	80 to 210 pF	30 A
	0805	12 to 48	34 to 110	80 to 220 pF	35 A
	1206	12 to 68	34 to 151	90 to 450 pF	35 A
	Package size	Working Voltage (Vdc)	Clamping Voltage (V)	Capacitance typical (pF)	Peak Current (8/20 µs)
MLVC High Energy	0805	12 to 33	34 to 79	230 to 420 pF	120 A
	1206	12 to 60	34 to 134	180 to 850 pF	150 A
	1210	11 to 65	33 to 144	400 to 1800	300 A
	1812	11 to 60	33 to 134	650 to 2400	500 A
	2220	18 to 68	44 to 151	700 to 4000	600 A
	3225	18 to 200	44 to 425	250 to 3500	400 A
	4032	14 to 200	35 to 422	700 to 5000	1200 A

Additional MLVs

**MLVA
Compact**

Package size	Working Voltage (Vdc)	Clamping Voltage (V)	Capacitance (pF) typical	Peak Current (8/20 µs)
0201	5.5	26 to 30 V	33 to 64 pF	-
0402	5.5 to 18	28 to 54 V	85 to 270 pF	20 A
0603	5.5 to 26	31 to 70 V	100 to 270 pF	30 A

**MLVB
Low Capacitance**

Package size	Working Voltage (Vdc)	Clamping Voltage (V)	Capacitance (pF) typical	Peak Current (8/20 µs)
0402	9 to 18	35 to 250	0.5 to 5 pF	-
0603	9 to 18	35 to 250	0.5 to 5 pF	-

Family Cross Reference

New MLVC families:

Eaton Family	TDK-EPCOS	Littelfuse	AVX	Amotech
MLVC04	CT0402	V-MLA0402 / V18MLE0402	VC0402	AVL-02
MLVC06	CT0603	V-MLA0603 / V18MLE0603	VC0603	AVL-03
MLVC08	CT0805	V-MLA0805 / V18MLE0805	VC0805	AVL-05
MLVC12	CT1206	V-MLA1206 / V18MLE1206	VC1206/VJ20M	AVL-06
MLVC13	CT1210	V-MLA1210	VJ13M	AVL-10
MLVC18	CT1812		VJ14M	
MLVC22	CT2220		VJ15M	
MLVC32		V-CH		AVM-K25
MLVC40				

MLVB families:

Eaton Family	TDK-EPCOS	Littelfuse	AVX	Amotech
MLVB04	CA0402	V0402MHS	USB0001	AVLC-02
MLVB06	CA0603	V0603MHS	USB0005 / USB0006	AVLC-03