INTRODUCTION

The MLV Series, designed for surface mount applications, are small multilayer varistors. They are available in standard EIA sizes of 0402, 0603, 0805, 1206, 1210, 1812 and 2220 packages. The MLV Series have 5 different sub-series:
EV Series - This is our lowest capacitance MLV series. Typically these are used in ESD and data line protection.
SV Series – This is our standard MLV series. They provide good high current pulse protection with moderate capacitance.
TV Series – This is our low capacitance MLV series, similar to the SV Series. This series should be selected when the SV series capacitance is too high.
PV Series – This is our power MLV series. They can protect against higher surge currents than the SV Series.
AV Series – This is our array series. They are designed for multiple I/O connections in a single package.
The MLV Series of varistors are designed to provide transient, surge, and ESD (Electrostatic Discharge) protection for a wide variety of applications.

STYLE DESIGNATION

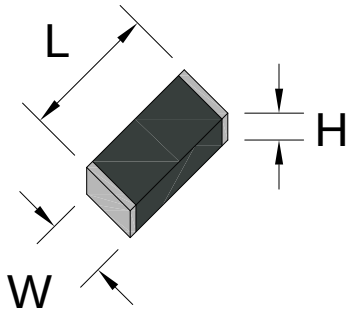
The Maida Style Number is the typical means to identify our components when ordered. The style number identifies several parameters that are important for the characteristics of the device. An alternative ordering method, if known, is by our Item Number.
The following example is the standard part numbering system when ordering our MLV Series components by the Maida Style Number:

EV 18 N 0603 L 120 R

1. **Series Designation**
2. **DC Voltage Rating (VDC)**
3. **End Termination Type**
   N – Tin (Sn) plated Nickel (Ni)
4. **Chip size**
   As defined by EIA standards
5. **Special Capacitance Designation**
   L – Low Capacitance
7. **Nominal Capacitance (pF)**
   Two significant figures plus number of zeroes that follow, i.e. 120 is 12 pF
8. **Packaging Code**
   B – Bulk
   R – Tape & Reel

STANDARD MARKING

The MLV Series currently do not have markings.



EV SERIES for ESD PROTECTION

Level 4 ESD protection to 8kV direct, 15kV air discharge

Maida Style Number	Recognitions To Safety Agency Standards						Nominal Size	Minimum Marking	Maximum Ratings						Electrical Characteristics				
									Continuous		Transient				Varistor Voltage @1 mA DC		Max Clamping Voltage (@Test Current)		Typical Cap.
									Applied Voltage		Energy		Peak Current 8 x 20 μsec # Pulses						1 V rms @1kHz
											10 x 1000 μsec	8 x 20 μsec	1	2	Vmin	Vmax	(8 x 20μsec)		
	A	B	C	D	E	F	(EIA)		(AC)	(DC)	(J)	(J)	(A)	(A)	(V)	(V)	(V)	(A)	(pF)
EV5N0402L1R0							0402	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	1
EV5N0402L3R0							0402	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	3
EV5N0402L5R0							0402	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	5
EV5N0402L100							0402	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	10
EV5N0402L150							0402	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	15
EV5N0402L220							0402	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	22
EV5N0402L330							0402	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	33
EV5N0402L470							0402	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	47
EV5N0402L680							0402	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	68
EV5N0402L820							0402	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	82
EV5N0402L101							0402	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	100
EV9N0402L220							0402	N/A	6.5	9	N/A	N/A	N/A	N/A	11	17	35	10	22
EV18N0402L5R0							0402	N/A	14	18	N/A	N/A	N/A	N/A	46	60	110	10	5
EV18N0402L100							0402	N/A	14	18	N/A	N/A	N/A	N/A	46	60	110	10	10
EV18N0402L220							0402	N/A	14	18	N/A	N/A	N/A	N/A	46	60	110	10	22
EV42N0402L3R0							0402	N/A	38	42	N/A	N/A	N/A	N/A	46	75	135	10	3
EV5N0603L1R0							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	1
EV5N0603L3R0							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	3
EV5N0603L5R0							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	5
EV5N0603L100							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	10
EV5N0603L150							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	15
EV5N0603L220							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	22
EV5N0603L330							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	33
EV5N0603L470							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	47
EV5N0603L680							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	68
EV5N0603L820							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	82
EV5N0603L101							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	100
EV5N0603L151							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	150
EV5N0603L221							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	220
EV5N0603L331							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	330
EV5N0603L471							0603	N/A	4	5	N/A	N/A	N/A	N/A	7.6	12	25	10	470
EV9N0603L5R0							0603	N/A	6.5	9	N/A	N/A	N/A	N/A	11	17	35	10	5
EV9N0603L220							0603	N/A	6.5	9	N/A	N/A	N/A	N/A	11	17	35	10	22
EV18N0603L5R0							0603	N/A	14	18	N/A	N/A	N/A	N/A	46	60	110	10	10
EV18N0603L120							0603	N/A	14	18	N/A	N/A	N/A	N/A	46	60	110	10	12
EV18N0603L220							0603	N/A	14	18	N/A	N/A	N/A	N/A	46	60	110	10	22
EV26N0603L220							0603	N/A	20	26	N/A	N/A	N/A	N/A				10	22
EV30N0603L040							0603	N/A	25	30	N/A	N/A	N/A	N/A	38	46	65	10	40
EV42N0603L150							0603	N/A	38	42	N/A	N/A	N/A	N/A				10	15

NOTES:
Appendix A lists the single-pulse peak current and energy ratings on file with the Safety Agencies.
Maximum transient rating specified in this table are valid. They may differ from those shown in Appendix A.
A = UL1449 File E321173 - Surge Protective Devices
B = cUL File E321173 - Surge Protective Devices
C = CSA C22.2 File 033468
D = VDE File 40017480
E = SEV - 96.7 70250.01

EV SERIES for ESD PROTECTION

Level 4 ESD protection to 8kV direct, 15kV air discharge

Maida Style Number	Length (L) (in)	Length Tolerance (L) (in)	Width (W) (in)	Width Tolerance (W) (in)	MAX. Height (H) (in)	Land Pad Length (PL) (in)	Land Pad Width (PW) (in)	Land Pad Thickness (PT) (in)	Typical Wire Diameter (d) (in)
EV5N0402L1R0	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV5N0402L3R0	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV5N0402L5R0	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV5N0402L100	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV5N0402L150	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV5N0402L220	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV5N0402L330	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV5N0402L470	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV5N0402L680	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV5N0402L820	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV5N0402L101	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV9N0402L220	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV18N0402L5R0	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV18N0402L100	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV18N0402L220	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV42N0402L3R0	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
EV5N0603L1R0	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L3R0	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L5R0	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L100	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L150	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L220	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L330	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L470	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L680	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L820	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L101	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L151	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L221	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L331	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV5N0603L471	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV9N0603L5R0	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV9N0603L220	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV18N0603L5R0	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV18N0603L120	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV18N0603L220	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV26N0603L220	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV30N0603L040	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
EV42N0603L150	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A

SV SERIES

Standard MLV

Maida Style Number	Recognitions To Safety Agency Standards						Nominal Size	Minimum Marking	Maximum Ratings						Electrical Characteristics				
									Continuous		Transient								
									Applied Voltage		Energy		Peak Current 8 x 20 μsec # Pulses		Varistor Voltage @1 mA DC		Max Clamping Voltage (@Test Current)		Typical Cap.
											10 x 1000 μsec	8 x 20 μsec	1	2	Vmin	Vmax	(8 x 20μsec)		1 V rms @1kHz
	A	B	C	D	E	F	(EIA)		(AC)	(DC)	(J)	(J)	(A)	(A)	(V)	(V)	(V)	(A)	(pF)
SV5R5N0402271							0402	N/A	4	5.5	0.1	0.1	20	20	6.9	9.3	19	1	270
SV9N0402131							0402	N/A	6.5	9	0.1	0.1	20	20	11.3	15.2	32	1	130
SV11N0402121							0402	N/A	8	11	0.1	0.1	20	20	12.7	17.3	33	1	120
SV11N0402400							0402	N/A	8	11	0.1	0.1	10	10	12.7	17.3	33	1	40
SV14N0603900							0402	N/A	11	14	0.1	0.1	20	20	16.2	19.8	38	1	90
SV14N0603330							0402	N/A	11	14	0.1	0.1	10	10	16.2	19.8	42	1	33
SV18N0603850							0402	N/A	14	18	0.1	0.1	20	20	19.8	24.2	45	1	85
SV3R5N0603181							0603	N/A	2.5	3.3	0.1	0.1	20	20	4.4	6.6	13	1	180
SV5R5N0603271							0603	N/A	4	5.5	0.1	0.1	30	30	6.9	9.3	16	1	270
SV8N0603141							0603	N/A	6	8	0.1	0.1	30	30	8.8	13.2	29	1	140
SV9N0603211							0603	N/A	7	9	0.1	0.1	30	30	10	15	27	1	210
SV11N0603201							0603	N/A	8	11	0.1	0.1	30	30	13	18	27	1	200
SV14N0603101							0603	N/A	11	14	0.1	0.1	30	30	16.2	19.8	35	1	100
SV14N0603151							0603	N/A	11	14	0.1	0.1	30	30	16.2	19.8	35	1	150
SV18N0603131							0603	N/A	14	18	0.1	0.1	30	30	19.8	24.2	40	1	130
SV26N0603101							0603	N/A	20	26	0.1	0.1	30	30	27.9	34.1	58	1	100
SV30N0603040							0603	N/A	25	30	0.1	0.1	30	30	38	46	65	1	40
SV39N0603030							0603	N/A	30	39	0.1	0.1	30	30	42	52	80	1	30
SV5R5N0805102							0805	N/A	4	5.5	0.3	0.3	120	120	6.9	9.3	15	2	1000
SV9N0805641							0805	N/A	6.5	9	0.3	0.3	120	120	11.3	15.2	24	2	640
SV11N0805581							0805	N/A	8	11	0.3	0.3	120	120	13	18	27	2	580
SV14N0805501							0805	N/A	10	14	0.3	0.3	120	120	17.5	23.7	30	2	500
SV18N0805401							0805	N/A	14	18	0.3	0.3	120	120	23	30	40	2	400
SV22N0805361							0805	N/A	17	22	0.3	0.3	120	120	28	34	50	2	360
SV26N0805281							0805	N/A	20	26	0.3	0.3	120	120	33	40	58	2	280
SV30N0805201							0805	N/A	25	30	0.3	0.3	120	120	38	46	65	2	200
SV39N0805151							0805	N/A	30	39	0.3	0.3	120	120	42	52	80	2	150
SV5R5N1206312							1206	N/A	4	5.5	0.4	0.4	100	100	7.5	10.5	20	10	3100
SV9N1206222							1206	N/A	6.5	9	0.4	0.4	150	150	11.3	15.2	25	10	2200
SV14N1206172							1206	N/A	10	14	0.4	0.4	150	150	17.5	23.7	30	10	1700
SV18N1206102							1206	N/A	14	18	0.4	0.4	150	150	23	30	40	10	1000
SV26N1206941							1206	N/A	20	26	0.4	0.4	150	150	33	40	58	10	940
SV30N1206891							1206	N/A	25	30	0.4	0.4	150	150	38	46	66	10	890
SV42N1206641							1206	N/A	30	42	0.4	0.4	150	150	46	60	180	10	640
SV48N1206601							1206	N/A	40	48	0.4	0.4	150	150	55	66	100	10	600
SV56N1206181							1206	N/A	40	56	0.4	0.4	150	150	63	77	120	10	180
SV18N1210172							1210	N/A	14	18	0.9	0.9	220	220	23	30	40	10	1700
SV26N1210122							1210	N/A	20	26	0.9	0.9	220	220	33	40	58	10	1200
SV30N1210901							1210	N/A	25	30	0.9	0.9	220	220	38	46	66	10	900
SV38N1210781							1210	N/A	30	38	0.9	0.9	250	250	42.3	51.7	77	10	780
SV48N1210451							1210	N/A	40	48	0.9	0.9	250	250	55	66	100	10	450
SV60N1210601							1210	N/A	50	60	0.9	0.9	250	250	69	83	120	10	600

NOTES:
Appendix A lists the single-pulse peak current and energy ratings on file with the Safety Agencies.
Maximum transient rating specified in this table are valid. They may differ from those shown in Appendix A.
A = UL1449 File E321173 - Surge Protective Devices
B = cUL File E321173 - Surge Protective Devices
C = CSA C22.2 File 033468
D = VDE File 40017480
E = SEV - 96.7 70250.01

SV SERIES

Standard MLV

Maida Style Number	Length (L) (in)	Length Tolerance (L) (in)	Width (W) (in)	Width Tolerance (W) (in)	MAX. Height (H) (in)	Land Pad Length (PL) (in)	Land Pad Width (PW) (in)	Land Pad Thickness (PT) (in)	Typical Wire Diameter (d) (in)
SV5R5N0402271	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
SV9N0402131	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
SV11N0402121	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
SV11N0402400	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
SV14N0603900	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
SV14N0603330	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
SV18N0603850	0.039	0.004	0.020	0.004	0.020	0.088	0.028	0.035	N/A
SV3R5N0603181	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
SV5R5N0603271	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
SV8N0603141	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
SV9N0603211	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
SV11N0603201	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
SV14N0603101	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
SV14N0603151	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
SV18N0603131	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
SV26N0603101	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
SV30N0603040	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
SV39N0603030	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
SV5R5N0805102	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
SV9N0805641	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
SV11N0805581	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
SV14N0805501	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
SV18N0805401	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
SV22N0805361	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
SV26N0805281	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
SV30N0805201	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
SV39N0805151	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
SV5R5N1206312	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
SV9N1206222	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
SV14N1206172	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
SV18N1206102	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
SV26N1206941	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
SV30N1206891	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
SV42N1206641	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
SV48N1206601	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
SV56N1206181	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
SV18N1210172	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A
SV26N1210122	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A
SV30N1210901	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A
SV38N1210781	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A
SV48N1210451	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A
SV60N1210601	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A

TV SERIES

Low Capacitance MLV

Maida Style Number	Recognitions To Safety Agency Standards						Nominal Size	Minimum Marking	Maximum Ratings						Electrical Characteristics				
									Continuous		Transient				Varistor Voltage @1 mA DC		Max Clamping Voltage (@Test Current)		Typical Cap.
									Applied Voltage		Energy		Peak Current 8 x 20 μsec # Pulses						1 V rms
											10 x 1000 μsec	8 x 20 μsec	1	2	Vmin	Vmax	(8 x 20μsec)		@1kHz
	A	B	C	D	E	F	(EIA)		(AC)	(DC)	(J)	(J)	(A)	(A)	(V)	(V)	(V)	(A)	(pF)
TV5R5N0603							0603	N/A	4	5.5	0.05	0.05	20	20	6.9	9.3	20	1	210
TV9N0603							0603	N/A	6.5	9	0.05	0.05	20	20	11	15	25	1	180
TV11N0603							0603	N/A	8	11	0.05	0.05	20	20	13	17	30	1	170
TV14N0603							0603	N/A	10	14	0.05	0.05	25	25	16.5	20.5	35	1	150
TV18N0603							0603	N/A	14	18	0.05	0.05	25	25	22	27	45	1	120
TV22N0603							0603	N/A	17	22	0.05	0.05	30	30	26	32	50	1	90
TV26N0603							0603	N/A	20	26	0.05	0.05	30	30	32	38	60	1	60
TV5R5N0805							0805	N/A	4	5.5	0.1	0.1	40	40	6.9	9.3	15	2	510
TV9N0805							0805	N/A	6.5	9	0.15	0.15	40	40	11.3	15.2	20	2	320
TV11N0805							0805	N/A	8	11	0.15	0.15	40	40	13	17	25	2	290
TV14N0805							0805	N/A	10	14	0.15	0.15	40	40	17.5	23.7	30	2	250
TV18N0805							0805	N/A	14	18	0.15	0.15	40	40	23	30	40	2	200
TV22N0805							0805	N/A	17	22	0.15	0.15	40	40	28	34	50	2	180
TV26N0805							0805	N/A	20	26	0.15	0.15	40	40	33	40	60	2	100

NOTES:
Appendix A lists the single-pulse peak current and energy ratings on file with the Safety Agencies.
Maximum transient rating specified in this table are valid. They may differ from those shown in Appendix A.
A = UL1449 File E321173 - Surge Protective Devices
B = cUL File E321173 - Surge Protective Devices
C = CSA C22.2 File 033468
D = VDE File 40017480
E = SEV - 96.7 70250.01

TV SERIES

Low Capacitance MLV

Maida Style Number	Length (L) (in)	Length Tolerance (L) (in)	Width (W) (in)	Width Tolerance (W) (in)	MAX. Height (H) (in)	Land Pad Length (PL) (in)	Land Pad Width (PW) (in)	Land Pad Thickness (PT) (in)	Typical Wire Diameter (d) (in)
TV5R5N0603	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
TV9N0603	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
TV11N0603	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
TV14N0603	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
TV18N0603	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
TV22N0603	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
TV26N0603	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
TV5R5N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
TV9N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
TV11N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
TV14N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
TV18N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
TV22N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
TV26N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A

PV SERIES

Power MLV

Maida Style Number	Recognitions To Safety Agency Standards						Nominal Size	Minimum Marking	Maximum Ratings						Electrical Characteristics				
									Continuous		Transient				Varistor Voltage @1 mA DC		Max Clamping Voltage (@Test Current)		Typical Cap.
									Applied Voltage		Energy		Peak Current 8 x 20 μsec # Pulses						1 V rms @1kHz
											10 x 1000 μsec	8 x 20 μsec	1	2	Vmin	Vmax	(8 x 20μsec)		
	A	B	C	D	E	F	(EIA)		(AC)	(DC)	(J)	(J)	(A)	(A)	(V)	(V)	(V)	(A)	(pF)
PV5R5N0603							0603	N/A	4	5.5	0.15	0.15	40	40	6.9	9.3	15.5	2	800
PV14N0603							0603	N/A	10	14	0.15	0.15	40	40	17.5	23.7	30	2	450
PV18N0603							0603	N/A	14	18	0.15	0.15	40	40	23	30	40	2	380
PV22N0603							0603	N/A	17	22	0.15	0.15	40	40	28	34	58	2	290
PV5R5N0805							0805	N/A	4	5.5	0.4	0.4	120	120	6.9	9.3	15.5	5	1530
PV14N0805							0805	N/A	10	14	0.4	0.4	150	150	16.5	20.5	30	5	750
PV18N0805							0805	N/A	14	18	0.4	0.4	150	150	23	30	40	5	640
PV22N0805							0805	N/A	17	22	0.4	0.4	150	150	28	34	50	5	540
PV26N0805							0805	N/A	20	26	0.4	0.4	150	150	33	40	58	5	480
PV30N0805							0805	N/A	25	30	0.4	0.4	150	150	38	46	65	5	250
PV3R5N1206							1206	N/A	2.5	3.3	0.7	0.7	150	150	4.4	6.6	13	10	7400
PV5R5N1206							1206	N/A	4	5.5	0.7	0.7	150	150	6.9	9.3	15.5	10	4800
PV14N1206							1206	N/A	10	14	0.7	0.7	200	200	17.5	23.7	30	10	2200
PV18N1206							1206	N/A	14	18	0.7	0.7	200	200	23	30	40	10	1700
PV26N1206							1206	N/A	20	26	0.7	0.7	200	200	33	40	58	10	1550
PV30N1206							1206	N/A	25	30	0.7	0.7	200	200	38	46	66	10	1430
PV48N1206							1206	N/A	40	48	0.7	0.7	200	200	55	66	100	10	1070
PV18N1210							1210	N/A	14	18	1.5	1.5	500	500	23	30	40	10	2680
PV26N1210							1210	N/A	20	26	1.5	1.5	300	300	33	40	58	10	2100
PV30N1210							1210	N/A	25	30	1.5	1.5	250	250	38	46	66	10	1900
PV48N1210							1210	N/A	40	48	1.5	1.5	250	250	55	66	100	10	1600
PV60N1210							1210	N/A	50	60	1.5	1.5	250	250	69	83	140	10	1230
PV85N1210							1210	N/A	67	85	1.5	1.5	250	250	98	118	160	10	590
PV18N1812							1812	N/A	14	18	2.5	2.5	500	500	23	30	40	10	3800
PV26N1812							1812	N/A	20	26	3.0	3.0	500	500	33	40	58	10	2950
PV30N1812							1812	N/A	25	30	3.7	3.7	500	500	38	46	66	10	2820
PV48N1812							1812	N/A	40	48	4.0	4.0	400	400	55	66	100	10	2740
PV60N1812							1812	N/A	50	60	4.5	4.5	400	400	69	83	140	10	2220
PV85N1812							1812	N/A	67	85	5.8	5.8	400	400	98	118	160	10	1400
PV5R5N2220							2220	N/A	4	5.5	2	2	1000	1000	6.9	9.3	15.5	10	15000
PV14N2220							2220	N/A	10	14	2.5	2.5	1200	1200	17.5	23.7	30	10	9600
PV18N2220							2220	N/A	14	18	3	3	1200	1200	23	30	40	10	6400
PV26N2220							2220	N/A	20	26	5	5	1200	1200	33	40	58	10	6200
PV30N2220							2220	N/A	25	30	6	6	1200	1200	38	46	66	10	5700
PV38N2220							2220	N/A	30	38	6	6	1200	1200	42	52	77	10	5500
PV48N2220							2220	N/A	40	48	8	8	1200	1200	55	66	100	10	5200

NOTES:
Appendix A lists the single-pulse peak current and energy ratings on file with the Safety Agencies.
Maximum transient rating specified in this table are valid. They may differ from those shown in Appendix A.
A = UL1449 File E321173 - Surge Protective Devices
B = cUL File E321173 - Surge Protective Devices
C = CSA C22.2 File 033468
D = VDE File 40017480
E = SEV - 96.7 70250.01

PV SERIES

Power MLV

Maida Style Number	Length (L) (in)	Length Tolerance (L) (in)	Width (W) (in)	Width Tolerance (W) (in)	MAX. Height (H) (in)	Land Pad Length (PL) (in)	Land Pad Width (PW) (in)	Land Pad Thickness (PT) (in)	Typical Wire Diameter (d) (in)
PV5R5N0603	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
PV14N0603	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
PV18N0603	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
PV22N0603	0.063	0.006	0.032	0.006	0.035	0.110	0.380	0.040	N/A
PV5R5N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
PV14N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
PV18N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
PV22N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
PV26N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
PV30N0805	0.079	0.008	0.049	0.008	0.043	0.125	0.600	0.045	N/A
PV3R5N1206	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
PV5R5N1206	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
PV14N1206	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
PV18N1206	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
PV26N1206	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
PV30N1206	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
PV48N1206	0.126	0.012	0.063	0.012	0.067	0.175	0.068	0.065	N/A
PV18N1210	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A
PV26N1210	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A
PV30N1210	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A
PV48N1210	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A
PV60N1210	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A
PV85N1210	0.126	0.012	0.098	0.012	0.071	0.175	0.110	0.065	N/A
PV18N1812	0.177	0.014	0.126	0.012	0.079	0.230	0.135	0.075	N/A
PV26N1812	0.177	0.014	0.126	0.012	0.079	0.230	0.135	0.075	N/A
PV30N1812	0.177	0.014	0.126	0.012	0.079	0.230	0.135	0.075	N/A
PV48N1812	0.177	0.014	0.126	0.012	0.079	0.230	0.135	0.075	N/A
PV60N1812	0.177	0.014	0.126	0.012	0.079	0.230	0.135	0.075	N/A
PV85N1812	0.177	0.014	0.126	0.012	0.079	0.230	0.135	0.075	N/A
PV5R5N2220	0.224	0.014	0.197	0.014	0.098	0.275	0.225	0.085	N/A
PV14N2220	0.224	0.014	0.197	0.014	0.098	0.275	0.225	0.085	N/A
PV18N2220	0.224	0.014	0.197	0.014	0.098	0.275	0.225	0.085	N/A
PV26N2220	0.224	0.014	0.197	0.014	0.098	0.275	0.225	0.085	N/A
PV30N2220	0.224	0.014	0.197	0.014	0.098	0.275	0.225	0.085	N/A
PV38N2220	0.224	0.014	0.197	0.014	0.098	0.275	0.225	0.085	N/A
PV48N2220	0.224	0.014	0.197	0.014	0.098	0.275	0.225	0.085	N/A

AV SERIES

Array series for mulitple ESD protection

Maida Style Number	Recognitions To Safety Agency Standards						Nominal Size	Minimum Marking	Maximum Ratings						Electrical Characteristics				
									Continuous		Transient								
									Applied Voltage		Energy		Peak Current 8 x 20 μsec # Pulses		Varistor Voltage @1 mA DC		Max Clamping Voltage (@Test Current)		Typical Cap.
											10 x 1000 μsec	8 x 20 μsec							1 V rms
	A	B	C	D	E	F	(EIA)		(AC)	(DC)	(J)	(J)	1 (A)	2 (A)	Vmin (V)	Vmax (V)	(8 x 20μsec) (V)	(A)	@1kHz (pF)
AV40805N5R5100							0805	N/A	4	5.5	0.01	0.01	5	5	9.6	14.4	34	1	10
AV40805N5R5330							0805	N/A	4	5.5	0.01	0.01	10	10	9.6	14.4	28	1	33
AV40805N5R5500							0805	N/A	4	5.5	0.01	0.01	10	10	9.6	14.4	27	1	50
AV40805N18150							0805	N/A	14	18	0.01	0.01	5	5	25	31	58	1	15
AV41206N18040							1206	N/A	14	<18	N/A	N/A	120	120	22	31	48	1	40
AV41206N18120							1206	N/A	14	<18	N/A	N/A	150	150	22	31	45	1	120

NOTES:
Appendix A lists the single-pulse peak current and energy ratings on file with the Safety Agencies.
Maximum transient rating specified in this table are valid. They may differ from those shown in Appendix A.
A = UL1449 File E321173 - Surge Protective Devices
B = cUL File E321173 - Surge Protective Devices
C = CSA C22.2 File 033468
D = VDE File 40017480
E = SEV - 96.7 70250.01

AV SERIES

Array series for mulitple ESD protection

Maida Style Number	Length (L) (in)	Length Tolerance (L) (in)	Width (W) (in)	Width Tolerance (W) (in)	MAX. Height (H) (in)	Land Pad Length (PL) (in)	Land Pad Width (PW) (in)	Land Pad Thickness (PT) (in)	Typical Wire Diameter (d) (in)
AV40805N5R5100	0.079	0.008	0.049	0.008	0.043	(1)	(1)	(1)	N/A
AV40805N5R5330	0.079	0.008	0.049	0.008	0.043	(1)	(1)	(1)	N/A
AV40805N5R5500	0.079	0.008	0.049	0.008	0.043	(1)	(1)	(1)	N/A
AV40805N18150	0.079	0.008	0.049	0.008	0.043	(1)	(1)	(1)	N/A
AV41206N18040	0.126	0.012	0.063	0.012	0.067	(1)	(1)	(1)	N/A
AV41206N18120	0.126	0.012	0.063	0.012	0.067	(1)	(1)	(1)	N/A

(1) : Please contact Maida for details.