

RADIAL LEAD METAL OXIDE VARISTORS-LOW VOLTAGE SERIES



Part Number	Agency Mark	Device Marking	Maximum Applied Voltage		Varistor Voltage @1mA DC V	Energy 2mS J	Maximum Clamping Voltage 8/20 µS V A		Peak Current A	Typical Capacitance pF	Dimensions(mm) ±1mm			
			AC _{RMS}	DC			D-Max	T			W	d		
Low Voltage Series - Radial Lead MOVs													Figure 64	
Z5L180	UL 5	180	11	14	18(14.4-21.6)	0.3	40	1	100	1600	7.5	3.5	5.0	0.6
Z5L220	UL 5	220	14	18	22(17.6-26.4)	0.4	48	1	100	1300	7.5	3.5	5.0	0.6
Z5L270	UL 5	270	17	22	27(24-30)	0.5	60	1	100	1050	7.5	3.5	5.0	0.6
Z5L330	UL 5	330	20	26	33(30-36)	0.6	73	1	100	900	7.5	3.5	5.0	0.6
Z5L390	UL 5	390	25	31	39(35-43)	0.8	86	1	100	500	7.5	3.5	5.0	0.6
Z5L470	UL 5	470	30	38	47(42-52)	1.0	104	1	100	450	7.5	3.5	5.0	0.6
Z5L560	UL 5	560	35	45	56(50-62)	1.0	123	1	100	400	7.5	3.5	5.0	0.6
Z5L680	UL 5	680	40	56	68(61-75)	1.2	150	1	100	350	7.5	3.5	5.0	0.6
Z5L820	UL 5	820	50	65	82(74-90)	1.7	145	5	400	250	7.5	3.5	5.0	0.6
Z5L101	UL 5	101	60	85	100(90-110)	2.0	175	5	400	200	7.0	3.7	5.0	0.6
Z5L121	UL 5	121	75	100	120(108-132)	2.5	210	5	400	170	7.0	3.8	5.0	0.6
Z5L151	UL 5	151	95	125	150(135-165)	3.0	260	5	400	140	7.0	4.0	5.0	0.6
Z5L181	UL 5	181	115	153	180(162-198)	3.5	300	5	400	100	7.0	4.1	5.0	0.6
Z5L201	UL 5	201	130	170	205(185-225)	4.0	355	5	400	80	7.0	4.2	5.0	0.6
Z5L221	UL 5	221	140	180	220(198-242)	4.5	380	5	400	70	7.0	4.3	5.0	0.6
Z5L241	UL 5	241	150	200	240(216-264)	5.0	415	5	400	70	7.0	4.4	5.0	0.6
Z5L271	UL 5	271	175	225	270(243-297)	6.0	475	5	400	60	7.0	4.6	5.0	0.6
Z5L331	UL 5	331	210	275	330(297-363)	6.5	580	5	400	55	7.0	4.9	5.0	0.6
Z5L361	UL 5	361	230	300	360(324-396)	7.5	620	5	400	50	7.0	5.1	5.0	0.6
Z5L391	UL 5	391	250	320	390(351-429)	8.0	675	5	400	50	7.0	5.4	5.0	0.6
Z5L431	UL 5	431	275	350	430(387-473)	9.0	745	5	400	45	7.0	5.7	5.0	0.6
Z5L471	UL 5	471	300	385	470(423-517)	10.0	810	5	400	40	7.0	6.0	5.0	0.6
Z7L180	UL 5	7L180	11	14	18(14.4-21.6)	0.8	36	2.5	250	3500	9.0	3.5	5.0	0.6
Z7L220	UL 5	7L220	14	18	22(17.6-26.4)	0.9	43	2.5	250	2800	9.0	3.6	5.0	0.6
Z7L270	UL 5	7L270	17	22	27(24-30)	1.0	53	2.5	250	2000	9.0	3.7	5.0	0.6
Z7L330	UL 5	7L330	20	26	33(30-36)	1.2	65	2.5	250	1500	9.0	3.9	5.0	0.6
Z7L390	UL 5	7L390	25	31	39(35-43)	1.5	77	2.5	250	1350	9.0	3.8	5.0	0.6
Z7L470	UL 5	7L470	30	38	47(42-52)	1.8	90	2.5	250	1150	9.0	3.9	5.0	0.6
Z7L560	UL 5	7L560	35	45	56(50-62)	2.3	105	2.5	250	950	9.0	4.0	5.0	0.6
Z7L680	UL 5	7L680	40	56	68(61-75)	3.0	125	2.5	250	700	9.0	4.2	5.0	0.6
Z7L820	UL 5	7L820	50	65	82(74-90)	4.0	135	10.0	1200	550	9.0	3.6	5.0	0.6
Z7L101	UL 5	7L101	60	85	100(90-110)	5.0	165	10.0	1200	500	9.0	3.7	5.0	0.6
Z7L121	UL 5	7L121	75	100	120(108-132)	6.0	200	10.0	1200	450	9.0	3.8	5.0	0.6
Z7L151	UL 5	7L151	95	125	150(135-165)	8.0	250	10.0	1200	350	9.0	4.0	5.0	0.6
Z7L181	UL 5	7L181	115	153	180(162-198)	10.0	300	10.0	1200	220	9.0	4.1	5.0	0.6
Z10L180	UL 5	10L180	11	14	18(14.4-21.6)	1.5	36	5	500	7500	13.5	3.6	7.5	0.8
Z10L220	UL 5	10L220	14	18	22(17.6-26.4)	2.0	43	5	500	6000	13.5	3.7	7.5	0.8
Z10L270	UL 5	10L270	17	22	27(24-30)	2.5	53	5	500	4000	13.5	3.8	7.5	0.8
Z10L330	UL 5	10L330	20	26	33(30-36)	3.0	65	5	500	3000	13.5	4.0	7.5	0.8
Z10L390	UL 5	10L390	25	31	39(35-43)	3.5	77	5	500	2600	13.5	4.1	7.5	0.8
Z10L470	UL 5	10L470	30	38	47(42-52)	4.5	90	5	500	2200	13.5	4.0	7.5	0.8
Z10L560	UL 5	10L560	35	45	56(50-62)	5.5	105	5	500	1800	13.5	4.1	7.5	0.8
Z10L680	UL 5	10L680	40	56	68(61-75)	6.5	125	5	500	1300	13.5	4.3	7.5	0.8
Z10L820	UL 5	10L820	50	65	82(74-90)	8.0	135	25	2500	1800	13.5	4.0	7.5	0.8
Z10L101	UL 5	10L101	60	85	100(90-110)	10.0	165	25	2500	1400	13.5	4.1	7.5	0.8
Z10L121	UL 5	10L121	75	100	120(108-132)	12.0	200	25	2500	1100	13.5	4.2	7.5	0.8
Z10L151	UL 5	10L151	95	125	150(135-165)	16.0	250	25	2500	900	13.5	4.5	7.5	0.8
Z10L181	UL 5	10L181	115	153	180(162-198)	18.0	300	25	2500	550	13.5	4.5	7.5	0.8
Z15L180	UL 5	Z15L180	11	14	18(14.4-21.6)	3.5	36	10	1000	18000	17.0	3.6	7.5	0.8
Z15L220	UL 5	Z15L220	14	18	22(17.6-26.4)	4.0	43	10	1000	15000	17.0	3.7	7.5	0.8
Z15L270	UL 5	Z15L270	17	22	27(24-30)	5.0	53	10	1000	10000	17.0	3.8	7.5	0.8
Z15L330	UL 5	Z15L330	20	26	33(30-36)	6.0	65	10	1000	7500	17.0	4.0	7.5	0.8
Z15L390	UL 5	Z15L390	25	31	39(35-43)	7.2	77	10	1000	6500	17.0	4.1	7.5	0.8
Z15L470	UL 5	Z15L470	30	38	47(42-52)	8.8	90	10	1000	5500	17.0	4.0	7.5	0.8
Z15L560	UL 5	Z15L560	35	45	56(50-62)	10.0	105	10	1000	4500	17.0	4.1	7.5	0.8
Z15L680	UL 5	Z15L680	40	56	68(61-75)	13.0	125	10	1000	3300	17.0	4.3	7.5	0.8
Z15L820	UL 5	Z15L820	50	65	82(74-90)	14.5	135	50	4500	2900	17.0	4.0	7.5	0.8
Z15L101	UL 5	Z15L101	60	85	100(90-110)	20.0	165	50	4500	2400	17.0	4.1	7.5	0.8
Z15L121	UL 5	Z15L121	75	100	120(108-132)	22.0	200	50	4500	1900	17.0	4.2	7.5	0.8
Z15L151	UL 5	Z15L151	95	125	150(135-165)	30.0	250	50	4500	1500	17.0	4.5	7.5	0.8
Z15L181	UL 5	Z15L181	115	153	180(162-198)	35.0	300	50	4500	1200	17.0	4.5	7.5	0.8
Z21L180	UL 5	Z21L180	11	14	18(14.4-21.6)	10.0	36	20	2000	18000	23.0	4.1	10.0	1.0
Z21L220	UL 5	Z21L220	14	18	22(17.6-26.4)	13.0	43	20	2000	15000	23.0	4.2	10.0	1.0
Z21L270	UL 5	Z21L270	17	22	27(24-30)	15.0	53	20	2000	10000	23.0	4.3	10.0	1.0
Z21L330	UL 5	Z21L330	20	26	33(30-36)	20.0	65	20	2000	7500	23.0	4.5	10.0	1.0
Z21L390	UL 5	Z21L390	25	31	39(35-43)	24.0	77	20	2000	6500	23.0	4.5	10.0	1.0
Z21L470	UL 5	Z21L470	30	38	47(42-52)	30.0	90	20	2000	5500	23.0	4.6	10.0	1.0
Z21L560	UL 5	Z21L560	35	45	56(50-62)	35.0	105	20	2000	4500	23.0	4.7	10.0	1.0
Z21L680	UL 5	Z21L680	40	56	68(61-75)	40.0	125	20	2000	3300	23.0	4.8	10.0	1.0
Z21L820	UL 5	Z21L820	50	65	82(74-90)	27.0	135	100	6500	2900	23.0	4.5	10.0	1.0
Z21L101	UL 5	Z21L101	60	85	100(90-110)	30.0	165	100	6500	2400	23.0	4.6	10.0	1.0
Z21L121	UL 5	Z21L121	75	100	120(108-132)	40.0	200	100	6500	1190	23.0	4.7	10.0	1.0
Z21L151	UL 5	Z21L151	95	125	150(135-165)	50.0	250	100	6500	1500	23.0	4.9	10.0	1.0
Z21L181	UL 5	Z21L181	115	153	180(162-198)	60.0	300	100	6500	1200	23.0	4.9	10.0	1.0

Radial leaded MOVs having the Underwriters Laboratory Recognized Component Mark, conform to UL 1414, UL1449 edition 3, as listed on DTI UL file number E319342. Maximum Power Dissipation: 5 mm-0.1 watt; 7 mm-0.25 watt; 10 mm-0.4 watt; 14 mm-0.6 watt, 20 mm-1 watt.

Typical response time is less than 15 nanoseconds. See page 57 for explanation of UL Surge Suppression Device Type Designations.

All devices listed are RoHS compliant.



RADIAL LEAD METAL OXIDE VARISTORS—LINE VOLTAGE SERIES

Part Number	Agency Mark	Device Marking	Maximum Applied Voltage		Varistor Voltage @1mADC V	Energy 2mS J	Maximum Clamping Voltage 8/20 μ S V A		Peak Current A	Typical Capacitance pF	Dimensions(mm) ±1mm			
			AC RMS	DC			D-Max	T			W	d		
Line Voltage Series - Radial Lead MOVs													Figure 64	
Z130LA2	5	1302	130	170	205(185-225)	11	340	10	1200	250	9.0	4.2	5.0	0.6
Z130LA5	5	1305	130	170	205(185-225)	20	340	25	2500	500	13.5	4.6	7.5	0.8
Z130LA10A	5	Z130LA10A	130	170	205(185-225)	38	340	50	4500	1000	17.0	4.6	7.5	0.8
Z130LA20A	5	Z130LA20A	130	170	205(185-225)	70	340	100	6500	2000	23.0	5.0	10.0	1.0
Z140LA2	5	1402	140	180	220(198-242)	12	360	10	1200	250	9.0	4.3	5.0	0.6
Z140LA5	5	1405	140	180	220(198-242)	23	360	25	2500	450	13.5	4.7	7.5	0.8
Z140LA10A	5	Z140LA10A	140	180	220(198-242)	42	360	50	4500	1000	17.0	4.7	7.5	0.8
Z140LA20A	5	Z140LA20A	140	180	220(198-242)	75	360	100	6500	2000	23.0	5.2	10.0	1.0
Z150LA2	5	1502	150	200	240(216-264)	13	395	10	1200	200	9.0	4.4	5.0	0.6
Z150LA5	5	1505	150	200	240(216-264)	25	395	25	2500	400	13.5	4.8	7.5	0.8
Z150LA10A	5	Z150LA10A	150	200	240(216-264)	45	395	50	4500	900	17.0	4.8	7.5	0.8
Z150LA20A	5	Z150LA20A	150	200	240(216-264)	80	395	100	6500	1800	23.0	5.3	10.0	1.0
Z175LA2	5	1752	175	225	270(247-303)	15	455	10	1200	170	9.0	4.6	5.0	0.6
Z175LA5	5	1755	175	225	270(247-303)	30	455	25	2500	350	13.5	5.0	7.5	0.8
Z175LA10A	5	Z175LA10A	175	225	270(247-303)	55	455	50	4500	750	17.0	5.1	7.5	0.8
Z175LA20A	5	Z175LA20A	175	225	270(247-303)	90	455	100	6500	1600	23.0	5.4	10.0	1.0
Z210LA4	5	2104	210	275	330(297-363)	15	550	10	1200	140	9.0	4.8	5.0	0.6
Z210LA10	5	210L	210	275	330(297-363)	32	550	25	2500	300	13.5	5.2	7.5	0.8
Z210LA20A	5	Z210LA20A	210	275	330(297-363)	60	550	50	4500	650	17.0	5.3	7.5	0.8
Z210LA40A	5	Z210LA40A	210	275	330(297-363)	105	550	100	6500	1400	23.0	5.5	10.0	1.0
Z230LA4	5	2304	230	300	360(324-396)	15	595	10	1200	130	9.0	5.2	5.0	0.6
Z230LA10	5	230L	230	300	360(324-396)	35	595	25	2500	300	14.0	5.7	7.5	0.8
Z230LA20A	5	Z230LA20A	230	300	360(324-396)	65	595	50	4500	550	17.5	5.7	7.5	0.8
Z230LA40A	5	Z230LA40A	230	300	360(324-396)	120	595	100	6500	1200	24.0	6.1	10.0	1.0
Z250LA4	5	2504	250	330	390(351-429)	21	650	10	1200	130	9.0	5.4	5.0	0.6
Z250LA10	5	250L	250	330	390(351-429)	40	650	25	2500	270	14.0	5.8	7.5	0.8
Z250LA20A	5	Z250LA20A	250	330	390(351-429)	72	650	50	4500	500	17.5	5.8	7.5	0.8
Z250LA40A	5	Z250LA40A	250	330	390(351-429)	130	650	100	6500	1000	24.0	6.4	10.0	1.0
Z275LA4	5	2754	275	350	430(387-473)	23	710	10	1200	110	9.0	5.7	5.0	0.6
Z275LA10	5	275L	275	350	430(387-473)	45	710	25	2500	250	14.0	6.2	7.5	0.8
Z275LA20A	5	Z275LA20A	275	350	430(387-473)	75	710	50	4500	450	17.5	6.2	7.5	0.8
Z275LA40A	5	Z275LA40A	275	350	430(387-473)	140	710	100	6500	900	24.0	6.7	10.0	1.0
Z300LA4	5	3004	300	385	470(423-517)	25	775	10	1200	100	9.0	6.0	5.0	0.6
Z300LA10	5	300L	300	385	470(423-517)	45	775	25	2500	230	14.0	6.2	7.5	0.8
Z300LA20A	5	Z300LA20A	300	385	470(423-517)	80	775	50	4500	440	17.5	6.2	7.5	0.8
Z300LA40A	5	Z300LA40A	300	385	470(423-517)	150	775	100	6500	900	24.0	6.7	10.0	1.0
Z350LA10	5	350L	350	455	560(504-616)	45	925	25	2500	180	14.0	6.1	7.5	0.8
Z350LA20A	5	Z350LA20A	350	455	560(504-616)	80	925	50	4500	350	17.5	6.3	7.5	0.8
Z350LA40A	5	Z350LA40A	350	455	560(504-616)	150	925	100	6500	700	24.0	6.8	10.0	1.0
Z385LA10	5	385L	385	505	620(558-682)	45	1025	25	2500	130	14.0	6.2	7.5	0.8
Z385LA20A	5	Z385LA20A	385	505	620(558-682)	85	1025	50	4500	250	17.5	6.5	7.5	0.8
Z385LA40A	5	Z385LA40A	385	505	620(558-682)	150	1025	100	6500	500	24.0	6.9	10.0	1.0
Z420LA10	5	420L	420	560	680(612-748)	45	1120	25	2500	130	14.0	6.5	7.5	0.8
Z420LA20A	5	Z420LA20A	420	560	680(612-748)	90	1120	50	4500	250	17.5	6.5	7.5	0.8
Z420LA40A	5	Z420LA40A	420	560	680(612-748)	160	1120	100	6500	460	24.0	6.9	10.0	1.0
Z460LA10	5	460L	460	615	750(675-825)	50	1240	25	2500	120	14.0	6.8	7.5	0.8
Z460LA20A	5	Z460LA20A	460	615	750(675-825)	100	1240	50	4500	230	17.5	6.8	7.5	0.8
Z460LA40A	5	Z460LA40A	460	615	750(675-825)	175	1240	100	6500	420	24.0	7.3	10.0	1.0
Z480LA20	5	480L	480	640	780(702-858)	50	1290	25	2500	120	14.0	6.9	7.5	0.8
Z480LA40A	5	Z480LA40A	480	640	780(702-858)	105	1290	50	4500	230	17.5	6.9	7.5	0.8
Z480LA80A	5	Z480LA80A	480	640	780(702-858)	180	1290	100	6500	420	24.0	7.4	10.0	1.0
Z510LA20	5	510L	510	670	820(738-902)	55	1355	25	2500	105	14.0	7.1	7.5	0.8
Z510LA40A	5	Z510LA40A	510	670	820(738-902)	110	1355	50	4500	200	17.5	7.1	7.5	0.8
Z510LA80A	5	Z510LA80A	510	670	820(738-902)	190	1355	100	6500	400	24.0	7.6	10.0	1.0
Z550LA20	5	550L	550	700	910(819-1000)	60	1500	25	2500	95	14.0	7.6	7.5	0.8
Z550LA40A	5	Z550LA40A	550	700	910(819-1000)	120	1500	50	4500	180	17.5	7.6	7.5	0.8
Z550LA80A	5	Z550LA80A	550	700	910(819-1000)	220	1500	100	6500	350	24.0	8.1	10.0	1.0
Z575LA20	5	575L	575	745	920(819-1000)	60	1500	25	2500	95	14.0	7.6	7.5	0.8
Z575LA40A	5	Z575LA40A	575	745	920(819-1000)	120	1500	50	4500	180	17.5	7.6	7.5	0.8
Z575LA80A	5	Z575LA80A	575	745	920(819-1000)	220	1500	100	6500	350	24.0	8.1	10.0	1.0
Z600LA20	5	625L	625	825	1000(900-1100)	65	1650	25	2500	80	14.0	8.0	7.5	0.8
Z600LA50A	5	Z600LA50A	625	825	1000(900-1100)	130	1650	50	4500	150	17.5	8.0	7.5	0.8
Z600LA100A	5	Z600LA100A	625	825	1000(900-1100)	230	1650	100	6500	320	24.0	8.5	10.0	1.0
Z660LA20	5	660L	680	895	1100(990-1210)	70	1815	25	2500	80	14.0	8.5	7.5	0.8
Z660LA50A	5	Z660LA50A	680	895	1100(990-1210)	140	1815	50	4500	150	17.5	8.5	7.5	0.8
Z660LA100A	5	Z660LA100A	680	895	1100(990-1210)	250	1815	100	6500	300	24.0	9.0	10.0	1.0
Z1000LA80A	5	Z1000LA80A	1000	1465	1800(1620-1980)	240	2970	50	4500	100	17.5	12.0	15.0	0.8
Z1000LA160A	5	Z1000LA160A	1000	1465	1800(1620-1980)	400	2970	100	6500	200	25.0	12.0	15.0	1.0

Radial leaded MOVs having the Underwriters Laboratory Recognized Component Mark, conform to UL 1414, UL1449 edition 3, as listed on DTI UL file number E319342. Maximum Power Dissipation: 5 mm-0.1 watt; 7 mm-0.25 watt; 10 mm-0.4 watt; 14 mm-0.6 watt, 20 mm-1 watt.

Typical response time is less than 15 nanoseconds.

See page 57 for explanation of UL Surge Suppression Device Type Designations.

All devices listed are RoHS compliant.



RADIAL LEAD METAL OXIDE VARISTORS - HIGH ENERGY SERIES

Part Number	Agency Mark	Device Marking	Maximum Applied Voltage		Varistor Voltage @1mA DC V	Energy 2mS J	Maximum Clamping Voltage 8/20 μ S		Peak Current A	Typical Capacitance pF	Dimensions(mm) \pm 1mm			
			AC _{RMS}	DC			V	A			D-Max	T	W	d
High Energy Series - Radial Lead MOVs													Figure 64	
Z130LA2H		1302H	130	170	205 (185-225)	17.0	340	10	1750	250	9.0	4.7	5.0	0.6
Z130LA5H		1305H	130	170	205 (185-225)	35.0	340	25	3500	570	14.0	5.1	7.5	0.8
Z130LA10AH		130H10A	130	170	205 (185-225)	69.0	340	50	6000	1150	17.5	5.1	7.5	0.8
Z130LA20AH		130H20A	130	170	205 (185-225)	140.0	340	100	10000	2300	25.0	5.5	10.0	1.0
Z130LA20BH		130H20B	130	170	200 (185-210)	140.0	325	100	10000	2300	25.0	5.5	10.0	1.0
Z140LA2H		1402H	140	180	220 (198-242)	19.0	360	10	1750	250	9.0	4.7	5.0	0.6
Z140LA5H		1405H	140	180	220 (198-242)	39.0	360	25	3500	560	14.0	5.1	7.5	0.8
Z140LA10AH		140H10A	140	180	220 (198-242)	77.0	360	50	6000	1100	17.5	5.1	7.5	0.8
Z140LA20AH		140H20A	140	180	220 (198-242)	155.0	360	100	10000	2200	25.0	5.5	10.0	1.0
Z140LA20BH		140H20B	140	180	220 (198-230)	155.0	345	100	10000	2200	25.0	5.5	10.0	1.0
Z150LA2H		1502H	150	200	240 (216-264)	21.0	395	10	1750	240	9.0	4.7	5.0	0.6
Z150LA5H		1505H	150	200	240 (216-264)	42.0	395	25	3500	550	14.0	5.1	7.5	0.8
Z150LA10AH		150H10A	150	200	240 (216-264)	83.0	395	50	6000	1050	17.5	5.1	7.5	0.8
Z150LA20AH		150H20A	150	200	240 (216-264)	168.0	395	100	10000	2200	25.0	5.5	10.0	1.0
Z150LA20BH		150H20B	150	200	240 (216-252)	168.0	375	100	10000	2200	25.0	5.5	10.0	1.0
Z175LA2H		1752H	175	225	270 (247-303)	24.0	455	10	1750	220	9.0	4.8	5.0	0.6
Z175LA5H		1755H	175	225	270 (247-303)	49.0	455	25	3500	530	14.0	5.2	7.5	0.8
Z175LA10AH		175H10A	175	225	270 (247-303)	94.0	455	50	6000	1000	17.5	5.2	7.5	0.8
Z175LA20AH		175H20A	175	225	270 (247-303)	190.0	455	100	10000	2100	25.0	5.6	10.0	1.0
Z175LA20BH		175H20B	175	225	270 (247-284)	190.0	435	100	10000	2100	25.0	5.6	10.0	1.0
Z200LA2H		2002H	195	250	300 (270-330)	26.0	500	10	1750	190	9.0	4.8	5.0	0.6
Z200LA5H		2005H	195	250	300 (270-330)	54.0	500	25	3500	500	14.0	5.2	7.5	0.8
Z200LA10AH		200H10A	195	250	300 (270-330)	103.0	500	50	6000	900	17.5	5.2	7.5	0.8
Z200LA20AH		200H20A	195	250	300 (270-330)	210.0	500	100	10000	1800	25.0	5.6	10.0	1.0
Z200LA20BH		200H20B	195	250	300 (270-315)	210.0	475	100	10000	1800	25.0	5.6	10.0	1.0
Z210LA4H		2104H	210	275	330 (297-363)	28.0	550	10	1750	170	9.0	4.9	5.0	0.6
Z210LA10H		210LH	210	275	330 (297-363)	58.0	550	25	3500	450	14.0	5.3	7.5	0.8
Z210LA20AH		210H20A	210	275	330 (297-363)	112.0	550	50	6000	850	17.5	5.3	7.5	0.8
Z210LA40AH		210H40A	210	275	330 (297-363)	228.0	550	100	10000	1750	25.0	5.7	10.0	1.0
Z210LA40BH		210H40B	210	275	330 (297-345)	228.0	525	100	10000	1750	25.0	5.7	10.0	1.0
Z230LA4H		2304H	230	300	360 (324-396)	32.0	595	10	1750	180	9.0	4.9	5.0	0.6
Z230LA10H		230H	230	300	360 (324-396)	65.0	595	25	3500	450	14.0	5.3	7.5	0.8
Z230LA20AH		230H20A	230	300	360 (324-386)	125.0	595	50	6000	850	17.5	5.3	7.5	0.8
Z230LA40AH		230H40A	230	300	360 (324-396)	255.0	595	100	10000	1700	25.0	5.7	10.0	1.0
Z230LA40BH		230H40B	230	300	360 (324-380)	255.0	565	100	10000	1700	25.0	5.7	10.0	1.0
Z250LA4H		2504H	250	320	390 (351-429)	35.0	650	10	1750	160	9.0	5.1	5.0	0.6
Z250LA10H		250H	250	320	390 (351-429)	70.0	650	25	3500	430	14.0	5.5	7.5	0.8
Z250LA20AH		250H20A	250	320	390 (351-429)	135.0	650	50	6000	800	17.5	5.5	7.5	0.8
Z250LA40AH		250H40A	250	320	390 (351-429)	275.0	650	100	10000	1400	25.0	5.9	10.0	1.0
Z250LA40BH		250H40B	250	320	390 (351-410)	275.0	620	100	10000	1400	25.0	5.9	10.0	1.0
Z275LA4H		2754H	275	350	430 (387-473)	40.0	710	10	1750	150	9.0	5.3	5.0	0.6
Z275LA10H		275H	275	350	430 (387-473)	80.0	710	25	3500	400	14.0	5.7	7.5	0.8
Z275LA20AH		275H20A	275	350	430 (387-473)	150.0	710	50	6000	650	17.5	5.7	7.5	0.8
Z275LA40AH		275H40A	275	350	430 (387-473)	305.0	710	100	10000	1350	25.0	6.1	10.0	1.0
Z275LA40BH		275H40B	275	350	430 (387-450)	305.0	675	100	10000	1350	25.0	6.1	10.0	1.0
Z300LA4H		3004H	300	385	470 (423-517)	42.0	775	10	1750	130	9.0	5.5	5.0	0.6
Z300LA10H		300H	300	385	470 (423-517)	85.0	775	25	3500	300	14.0	5.9	7.5	0.8
Z300LA20AH		300H20A	300	385	470 (423-517)	172.0	775	50	6000	550	17.5	5.9	7.5	0.8
Z300LA40AH		300H40A	300	385	470 (423-517)	350.0	775	100	10000	1200	25.0	6.3	10.0	1.0
Z300LA40BH		300H40B	300	385	470 (423-494)	350.0	735	100	10000	1200	25.0	6.3	10.0	1.0

Radial leaded MOVs having the Underwriters Laboratory Recognized Component Mark, conform to UL 1414, UL1449 edition 3, as listed on DTI UL file number E319342. Maximum Power Dissipation: 5 mm-0.1 watt; 7 mm-0.25 watt; 10 mm-0.4 watt; 14 mm-0.6 watt, 20 mm-1 watt.

Typical response time is less than 15 nanoseconds.

See page 57 for explanation of UL Surge Suppression Device Type Designations.

All devices listed are RoHS compliant.

RADIAL LEAD METAL OXIDE VARISTORS - HIGH ENERGY SERIES



Part Number	Agency Mark	Device Marking	Maximum Applied Voltage		Varistor Voltage @1mADC V	Energy 2mS J	Maximum Clamping Voltage 8/20 μ S		Peak Current A	Typical Capacitance pF	Dimensions(mm) \pm 1mm			
			AC _{RMS}	DC			V	A			D-Max	T	W	d
High Energy Series - Radial Lead MOVs											Figure 64			
Z320LA4H	RA4	3204H	320	410	510 (459-561)	32	845	10	1750	120	9.0	5.7	5.0	0.6
Z320LA10H	RA4	320H	320	410	510 (459-561)	67	845	25	3500	260	14.0	6.1	7.5	0.8
Z320LA20AH	RA4	320H20A	320	410	510 (459-561)	136	845	50	6000	450	17.5	6.1	7.5	0.8
Z320LA40AH	RA3	320H40A	320	410	510 (459-561)	273	845	100	10000	1050	25.0	6.5	10.0	1.0
Z320LA40BH	RA3	320H40B	320	410	510 (459-535)	273	805	100	10000	1050	25.0	6.5	10.0	1.0
Z350LA4H	RA4	3504H	350	460	560 (504-616)	32	915	10	1750	120	9.0	6.0	5.0	0.6
Z350LA10H	RA4	350H	350	460	560 (504-616)	67	915	25	3500	200	14.0	6.0	7.5	0.8
Z350LA20AH	RA4	350H20A	350	460	560 (504-616)	136	915	50	6000	400	14.0	6.4	7.5	0.8
Z350LA40AH	RA3	350H40A	350	460	560 (504-616)	273	915	100	10000	850	25.0	6.8	10.0	1.0
Z350LA40BH	RA3	350H40B	350	460	560 (504-590)	273	870	100	10000	850	25.0	6.8	10.0	1.0
Z385LA4H	RA4	3854H	385	505	620 (558-682)	32	1025	10	1750	120	9.0	6.3	5.0	0.6
Z385LA10H	RA4	385H	385	505	620 (558-682)	67	1025	25	3500	170	14.0	6.7	7.5	0.8
Z385LA20AH	RA4	385H20A	385	505	620 (558-682)	136	1025	50	6000	350	17.5	6.7	7.5	0.8
Z385LA40AH	RA3	385H40A	385	505	620 (558-682)	273	1025	100	10000	570	25.0	7.1	10.0	1.0
Z385LA40BH	RA3	385H40B	385	505	620 (558-650)	273	975	100	10000	570	25.0	7.1	10.0	1.0
Z420LA10H	RA4	420H	420	560	680 (612-748)	67	1120	25	3500	160	14.0	7.0	7.5	0.8
Z420LA20AH	RA4	420H20A	420	560	680 (612-748)	136	1120	50	6000	350	17.5	7.0	7.5	0.8
Z420LA40AH	RA3	420H40A	420	560	680 (612-748)	273	1120	100	10000	550	25.0	7.4	10.0	1.0
Z420LA40BH	RA3	420H40B	420	560	680 (612-715)	273	1065	100	10000	550	25.0	7.4	10.0	1.0
Z460LA10H	RA4	460H	460	615	750 (675-825)	70	1240	25	3500	150	14.0	7.4	7.5	0.8
Z460LA20AH	RA4	460H20A	460	615	750 (675-825)	150	1240	50	6000	330	17.5	7.4	7.5	0.8
Z460LA40AH	RA3	460H40A	460	615	750 (675-825)	300	1240	100	10000	530	25.0	7.8	10.0	1.0
Z460LA40BH	RA3	460H40B	460	615	750 (675-790)	300	1180	100	10000	530	25.0	7.8	10.0	1.0
Z480LA20H	RA4	480H	485	640	780 (702-858)	75	1290	25	3500	150	14.0	7.4	7.5	0.8
Z480LA40AH	RA4	480H40A	485	640	780 (702-858)	160	1290	50	6000	330	17.5	7.4	7.5	0.8
Z480LA80AH	RA3	480H80A	485	640	780 (702-858)	315	1290	100	10000	530	25.0	7.8	10.0	1.0
Z480LA80BH	RA3	480H80B	485	640	780 (702-820)	315	1225	100	10000	530	25.0	7.8	10.0	1.0
Z510LA20H	RA4	510H	510	670	820 (738-902)	80	1355	25	3500	150	14.0	7.8	7.5	0.8
Z510LA40AH	RA4	510H40A	510	670	820 (738-902)	165	1355	50	6000	330	17.5	7.8	7.5	0.8
Z510LA80AH	RA3	510H80A	510	670	820 (738-902)	325	1355	100	10000	530	25.0	8.2	10.0	1.0
Z510LA80BH	RA3	510H80B	510	670	820 (738-860)	325	1290	100	10000	530	25.0	8.2	10.0	1.0
Z550LA20H	RA4	550H	550	745	910 (819-1001)	90	1500	25	3500	140	14.0	8.2	7.5	0.8
Z550LA40AH	RA4	550H40A	550	745	910 (819-1001)	180	1500	50	6000	300	17.5	8.2	7.5	0.8
Z550LA80AH	RA3	550H80A	550	745	910 (819-1001)	360	1500	100	10000	480	25.0	8.6	10.0	1.0
Z550LA80BH	RA3	550H80B	550	745	910 (819-955)	360	1425	100	10000	480	25.0	8.6	10.0	1.0
Z600LA20H	RA4	625H	625	825	1000 (900-1100)	100	1650	25	3500	140	14.0	8.7	7.5	0.8
Z600LA50AH	RA4	600H50A	625	825	1000 (900-1100)	200	1650	50	6000	300	17.5	8.7	7.5	0.8
Z600LA100AH	RA3	600H100A	625	825	1000 (900-1100)	400	1650	100	10000	480	25.0	9.1	10.0	1.0
Z600LA100BH	RA3	600H100B	625	825	1000 (900-1050)	400	1570	100	10000	480	25.0	9.1	10.0	1.0
Z660LA20H	RA4	660H	680	895	1100 (990-1210)	110	1815	25	3500	130	14.0	9.2	7.5	0.8
Z660LA50AH	RA4	660H50A	680	895	1100 (990-1210)	220	1815	50	6000	200	17.5	9.2	7.5	0.8
Z660LA100AH	RA3	660H100A	680	895	1100 (990-1210)	440	1815	100	10000	400	25.0	9.6	10.0	1.0
Z660LA100BH	RA3	660H100B	680	895	1100 (990-1155)	440	1725	100	10000	400	25.0	9.6	10.0	1.0
Z1000LA20H	RA4	1000H	1000	1465	1800 (1620-1980)	183	2970	25	3500	70	14.0	9.2	7.5	0.8
Z1000LA80AH	RA4	1000H80A	1000	1465	1800 (1620-1980)	360	2970	50	6000	150	17.5	13.9	7.5	0.8
Z1000LA160AH	RA3	1000H160A	1000	1465	1800 (1620-1980)	720	2970	100	10000	250	25.0	14.3	10.0	1.0
Z1000LA160BH	RA3	1000H160B	1000	1465	1800(1620-1890)	720	2820	100	1000	250	25.0	14.3	10.0	1.0

Radial leaded MOVs having the Underwriters Laboratory Recognized Component Mark, conform to UL 1414, UL1449 edition 3, as listed on DTI UL file number E319342. Maximum Power Dissipation: 5 mm-0.1 watt; 7 mm-0.25 watt; 10 mm-0.4 watt; 14 mm-0.6 watt, 20 mm-1 watt.

Typical response time is less than 15 nanoseconds.

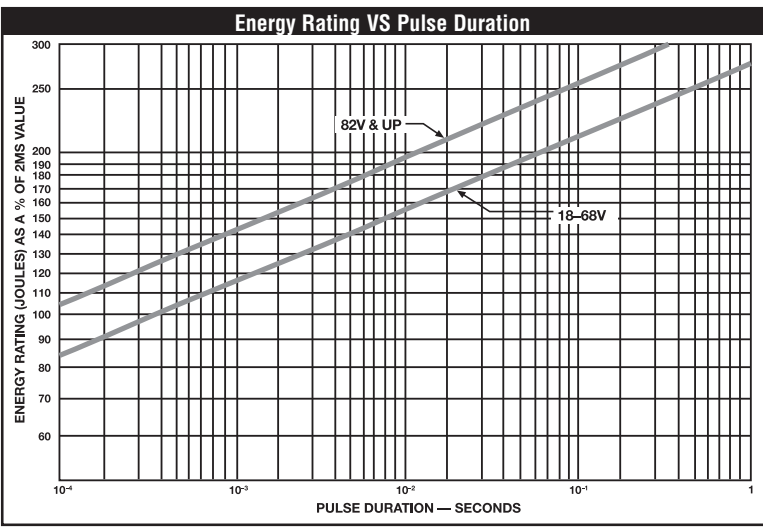
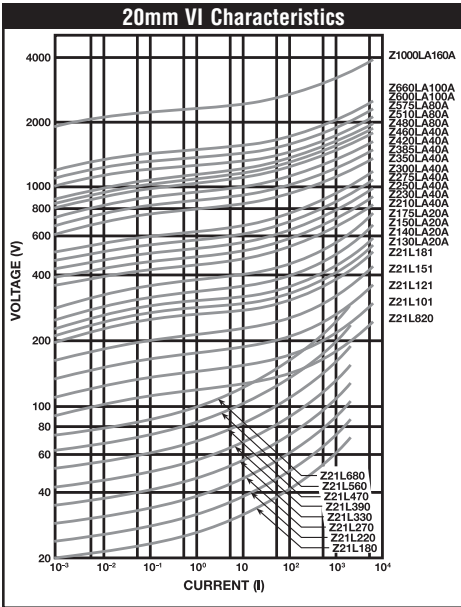
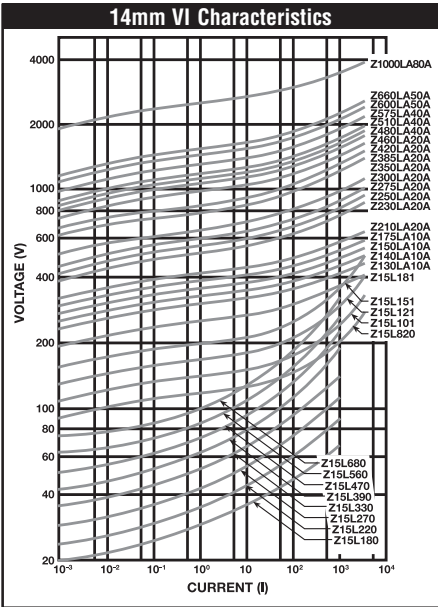
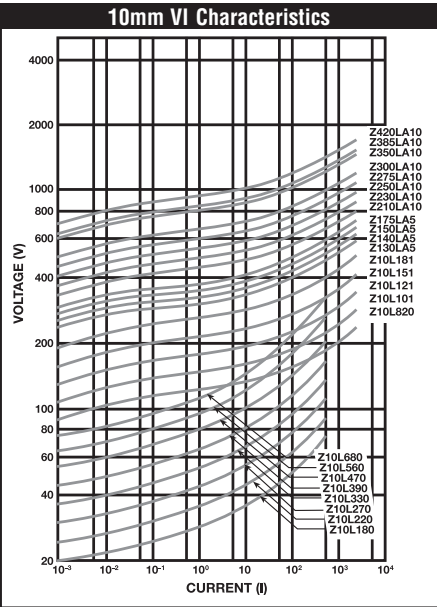
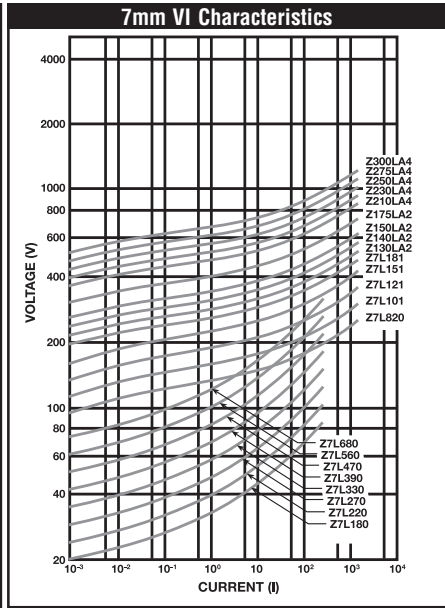
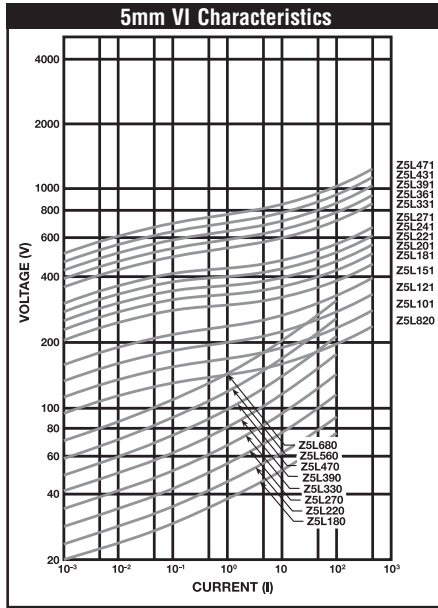
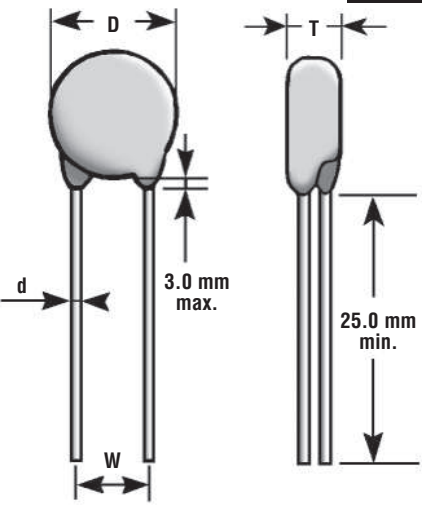
See page 57 for explanation of UL Surge Suppression Device Type Designations.

All devices listed are RoHS compliant.



Radial Lead Series

FIGURE 64



See website www.dean-technology.com or contact factory for additional information on characteristic curves