



HIGH ENERGY METAL OXIDE VARISTORS – Z32RD AND Z34SQ SERIES

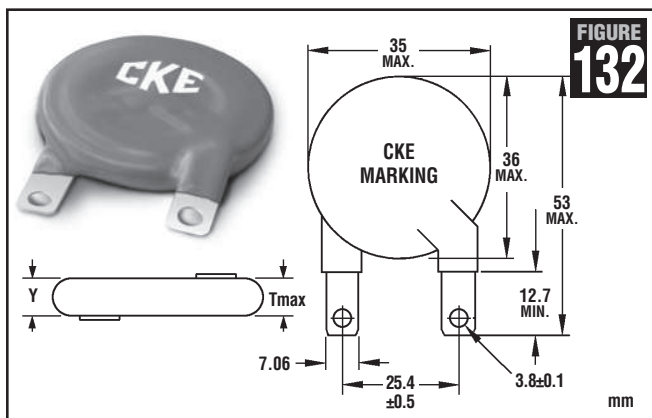


FIGURE 132

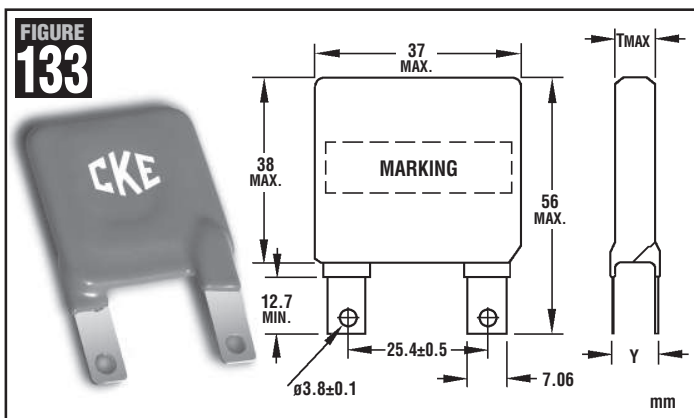


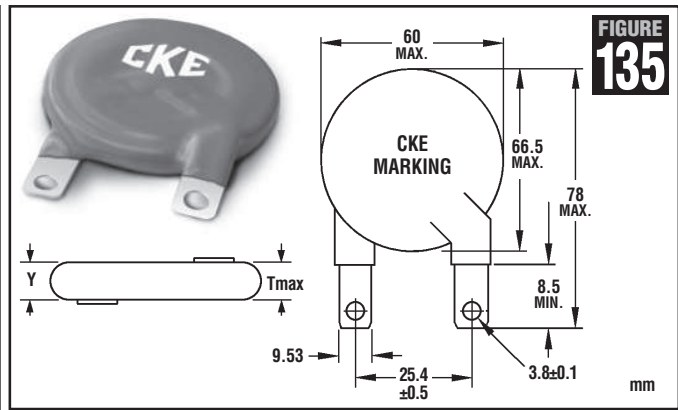
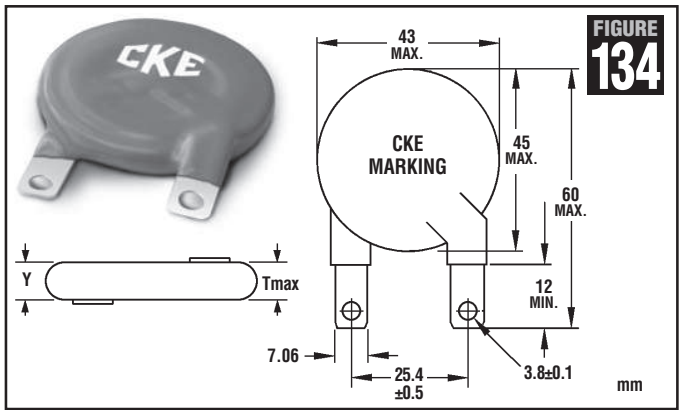
FIGURE 133

Part Number	Agency Mark	Maximum Applied Voltage		Varistor Voltage @1mA DC V	Maximum Energy 2mS J	Maximum Clamping Voltage 8/20µS		Peak Current 8/20µS		Typical Capacitance 1 kHz pF	Dimensions		
		AC _{RMS} V	DC V			V _c V	I _p A	1 Time A	2 Times A		T mm	Y mm	
Z32RD Round Series - MOVs												Figure 132	
Z32RD201	UL2	130	170	205(185-225)	210	340	200	25000	20000	4100	6.8	4.9	
Z32RD241	UL2	150	200	240(216-264)	240	395	200	25000	20000	3400	7.0	5.1	
Z32RD271	UL2	175	225	270(243-297)	255	455	200	25000	20000	2900	7.1	5.2	
Z32RD331	UL2	210	275	330(297-363)	300	550	200	25000	20000	2600	7.3	5.4	
Z32RD361	UL2	230	300	360(324-396)	315	595	200	25000	20000	2300	7.5	5.6	
Z32RD391	UL2	250	320	390(351-429)	330	650	200	25000	20000	2100	7.7	5.8	
Z32RD431	UL2	275	350	430(387-473)	360	710	200	25000	20000	2000	7.9	6.0	
Z32RD471	UL2	300	385	470(423-517)	380	775	200	25000	20000	1700	8.1	6.2	
Z32RD511	UL2	320	415	510(459-561)	430	845	200	25000	20000	1600	8.4	6.5	
Z32RD621	UL2	385	505	620(558-682)	470	1025	200	25000	20000	1300	9.0	7.1	
Z32RD681	UL2	420	560	680(612-748)	495	1120	200	25000	20000	1300	9.4	7.5	
Z32RD751	UL2	460	615	750(675-825)	520	1240	200	25000	20000	1100	9.8	7.9	
Z32RD781	UL2	485	640	780(702-858)	550	1290	200	25000	20000	1100	10.0	8.0	
Z32RD821	UL2	510	670	820(738-902)	580	1355	200	25000	20000	1000	10.2	8.3	
Z32RD911	UL2	550	745	910(819-1001)	620	1500	200	25000	20000	950	10.7	8.8	
Z32RD951	UL2	575	765	950(855-1045)	650	1570	200	25000	20000	900	11.0	9.0	
Z32RD102	UL2	625	825	1000(900-1100)	685	1650	200	25000	20000	840	11.2	9.3	
Z32RD112	UL2	680	895	1100(990-1210)	750	1815	200	25000	20000	770	11.7	9.8	
Z32RD122	UL2	750	970	1200(1062-1300)	800	2100	200	25000	20000	690	12.8	10.9	
Z32RD142	UL2	880	1150	1400(1245-1520)	850	2290	200	25000	20000	590	13.8	11.9	
Z32RD162	UL2	1000	1200	1600(1414-1728)	900	2700	200	25000	20000	520	14.9	13.0	
Z34SQ Square Series - MOVs												Figure 133	
Z34SQ201	UL1	130	170	205(185-225)	310	340	300	40000	25000	7900	6.8	4.9	
Z34SQ221	UL1	140	180	220(198-242)	330	360	300	40000	25000	7200	6.9	5	
Z34SQ241	UL1	150	200	240(216-264)	360	395	300	40000	25000	6600	7	5.1	
Z34SQ271	UL1	175	225	270(243-297)	390	455	300	40000	25000	5600	7.1	5.2	
Z34SQ331	UL1	210	275	330(297-363)	460	550	300	40000	25000	5000	7.3	5.4	
Z34SQ361	UL1	230	300	360(324-396)	475	595	300	40000	25000	4400	7.5	5.6	
Z34SQ391	UL1	250	320	390(351-429)	490	650	300	40000	25000	4100	7.7	5.8	
Z34SQ431	UL1	275	350	430(387-473)	550	710	300	40000	25000	3800	7.9	6.0	
Z34SQ471	UL1	300	385	470(423-517)	600	775	300	40000	25000	3400	8.1	6.2	
Z34SQ511	UL1	320	415	510(459-561)	640	845	300	40000	25000	3200	8.4	6.5	
Z34SQ561	UL1	350	460	560(504-616)	710	920	300	40000	25000	2900	8.5	6.8	
Z34SQ621	UL1	385	505	620(558-682)	720	1025	300	40000	25000	2600	9	7.1	
Z34SQ681	UL1	420	560	680(612-748)	750	1120	300	40000	25000	2400	9.4	7.5	
Z34SQ751	UL1	460	615	750(675-825)	780	1240	300	40000	25000	2200	9.8	7.9	
Z34SQ781	UL1	485	640	780(702-858)	820	1290	300	40000	25000	2100	10	8.0	
Z34SQ821	UL1	510	670	820(738-902)	900	1355	300	40000	25000	2000	10.2	8.3	
Z34SQ911	UL1	550	745	910(819-1001)	960	1500	300	40000	25000	1800	10.7	8.8	
Z34SQ951	UL1	575	765	950(855-1045)	1000	1570	300	40000	25000	1700	11	9.0	
Z34SQ102	UL1	625	825	1000(900-1100)	1055	1650	300	40000	25000	1600	11.2	9.3	
Z34SQ112	UL1	680	895	1100(990-1210)	1155	1815	300	40000	25000	1500	11.7	9.8	
Z34SQ122	UL1	750	970	1200(1062-1300)	1200	2100	300	40000	25000	1300	12.8	10.9	
Z34SQ142	UL1	880	1150	1400(1245-1520)	1300	2290	300	40000	25000	1100	13.8	11.9	
Z34SQ162	UL1	1000	1200	1600(1414-1728)	1400	2700	300	40000	25000	1000	14.9	13.0	

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.



Part Number	Agency Mark	Maximum Applied Voltage		Varistor Voltage @ 1mA DC	Maximum Energy 2mS	Maximum Clamping Voltage 8/20µS		Peak Current 8/20µS		Typical Capacitance 1 kHz	Dimensions	
		AC _{RMS} V	DC V			V _c V	I _p A	1 Time A	2 Times A		1 kHz pF	T mm
Z40RD Series - MOVs											Figure 134	
Z40RD201		130	170	205(185-225)	310	340	300	40000	25000	8600	6.8	4.9
Z40RD241		150	200	240(216-264)	360	395	300	40000	25000	7200	7.0	5.1
Z40RD271		175	225	270(243-297)	390	455	300	40000	25000	6000	7.1	5.2
Z40RD331		210	275	330(297-363)	460	550	300	40000	25000	5400	7.3	5.4
Z40RD361		230	300	360(324-396)	475	595	300	40000	25000	4800	7.5	5.6
Z40RD391		250	320	390(351-429)	490	650	300	40000	25000	4400	7.7	5.8
Z40RD431		275	350	430(387-473)	550	710	300	40000	25000	4100	7.9	6.0
Z40RD471		300	385	470(423-517)	600	775	300	40000	25000	3600	8.1	6.2
Z40RD511		320	415	510(459-561)	640	845	300	40000	25000	3400	8.4	6.5
Z40RD621		385	505	620(558-682)	720	1025	300	40000	25000	2800	9.0	7.1
Z40RD681		420	560	680(612-748)	750	1120	300	40000	25000	2600	9.4	7.5
Z40RD751		460	615	750(675-825)	780	1240	300	40000	25000	2400	9.8	7.9
Z40RD781		485	640	780(702-858)	820	1290	300	40000	25000	2270	10.0	8.0
Z40RD821		510	670	820(738-902)	900	1355	300	40000	25000	2160	10.2	8.3
Z40RD911		550	745	910(819-1001)	960	1500	300	40000	25000	1940	10.7	8.8
Z40RD951		575	765	950(855-1045)	1000	1570	300	40000	25000	1800	11.0	9.0
Z40RD102		625	825	1000(900-1100)	1055	1650	300	40000	25000	1730	11.2	9.3
Z40RD112		680	895	1100(990-1210)	1155	1815	300	40000	25000	1620	11.7	9.8
Z40RD122		750	970	1200(1062-1300)	1200	2100	300	40000	25000	1400	12.8	10.9
Z40RD142		880	1150	1400(1245-1520)	1300	2290	300	40000	25000	1200	13.8	11.9
Z40RD162		1000	1200	1600(1414-1728)	1400	2700	300	40000	25000	1080	14.9	13.0
Z53RD Series - MOVs											Figure 135	
Z53RD201	UL	130	170	205(185-225)	490	340	500	70000	50000	14000	6.8	4.9
Z53RD241	UL	150	200	240(216-264)	570	395	500	70000	50000	11000	7.0	5.1
Z53RD271	UL	175	225	270(243-297)	630	455	500	70000	50000	10000	7.1	5.2
Z53RD331	UL	210	275	330(297-363)	680	550	500	70000	50000	8500	7.3	5.4
Z53RD361	UL	230	300	360(324-396)	730	595	500	70000	50000	7700	7.5	5.6
Z53RD391	UL	250	320	390(351-429)	880	650	500	70000	50000	7100	7.7	5.8
Z53RD431	UL	275	350	430(387-473)	950	710	500	70000	50000	6600	7.9	6.0
Z53RD471	UL	300	385	470(423-517)	1000	775	500	70000	50000	5900	8.1	6.2
Z53RD511	UL	320	415	510(459-561)	1100	845	500	70000	50000	5700	8.4	6.5
Z53RD561	UL	350	460	560(504-616)	1200	875	500	70000	50000	5000	8.7	6.8
Z53RD621	UL	385	505	620(558-682)	1300	1025	500	70000	50000	4600	9.0	7.1
Z53RD681	UL	420	560	680(612-748)	1500	1120	500	70000	50000	4400	9.4	7.5
Z53RD751	UL	460	615	750(675-825)	1600	1240	500	70000	50000	3900	9.8	7.9
Z53RD781	UL	485	640	780(702-858)	1650	1290	500	70000	50000	3800	10.0	8.0
Z53RD821	UL	510	670	820(738-902)	1800	1355	500	70000	50000	3500	10.2	8.3
Z53RD911	UL	550	745	910(819-1001)	2000	1500	500	70000	50000	3300	10.7	8.8
Z53RD951	UL	575	765	950(855-1045)	2100	1570	500	70000	50000	3100	11.0	9.0
Z53RD102	UL	625	825	1000(900-1100)	2200	1650	500	70000	50000	2900	11.2	9.3
Z53RD112	UL	680	895	1100(990-1210)	2500	1815	500	70000	50000	2700	11.7	9.8
Z53RD122	UL	750	970	1200(1062-1300)	2600	2100	500	70000	50000	2400	12.8	10.9
Z53RD142	UL	880	1150	1400(1245-1520)	3200	2290	500	70000	50000	2100	13.8	11.9
Z53RD162	UL	1000	1200	1600(1414-1728)	3500	2700	500	70000	50000	1800	14.9	13.0

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Typical response time is less than 15 nanoseconds.

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

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