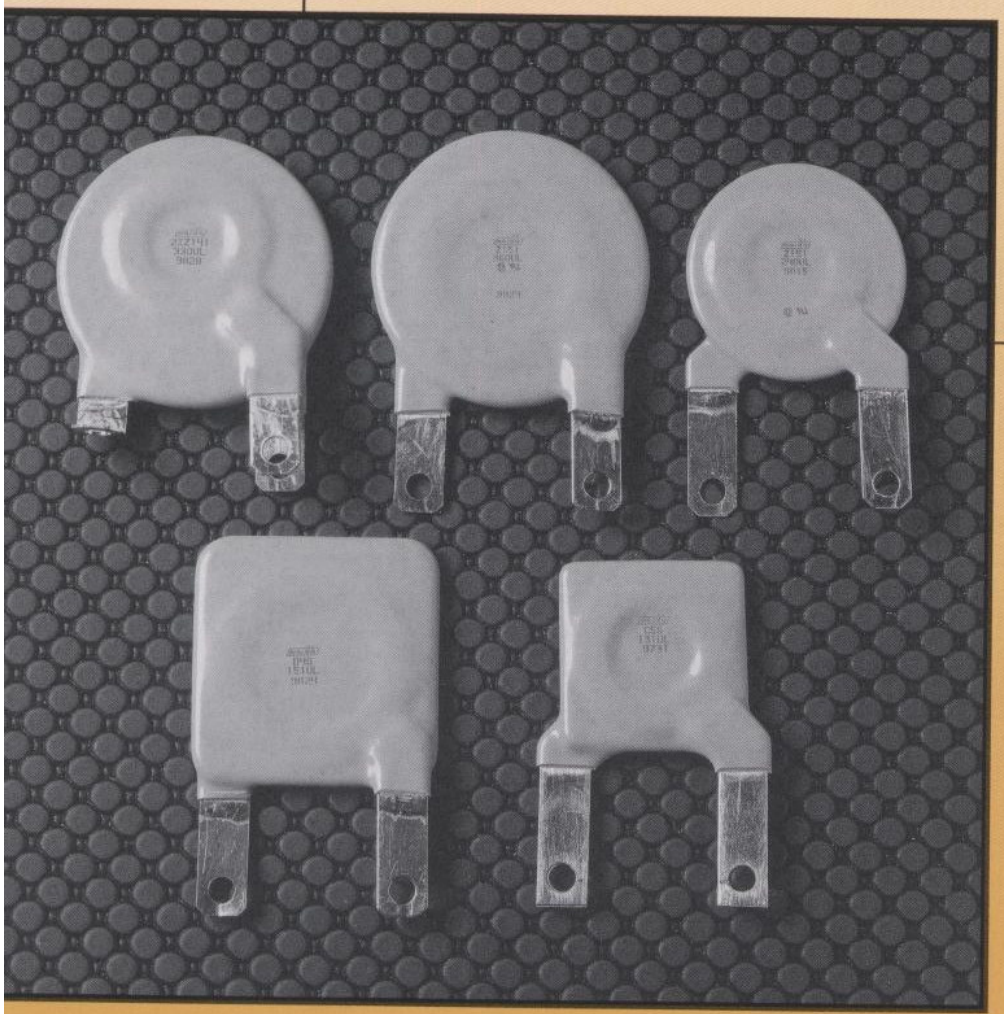


HIGH ENERGY SERIES

maida

INTRODUCTION

High Energy Series

The High Energy Series, large tab-leaded varistors, are designed to handle extremely high peak currents and have the ability to absorb large amounts of energy. They are available in round and square shapes to allow mounting in various spaces. They are also available in "dual" configurations that allow the user to apply these parts in series or parallel circuit topologies.

These varistors are available in 32mm, 40mm, and 53mm single-disk configurations; 25mm and 34mm single-square configurations; 40mm dual-disk configuration; and 25mm and 34mm dual-square configurations. Several styles of tabbed-leads are available to accommodate various mounting schemes. The voltages for which these components are available, range from 130VAC to 1000VAC.

Style Designation

The Maida Style number is the primary means to identify our components. The style number identifies several parameters that are important for the characteristics of the device.

D _ _ _ _ ZOV _ _ _ RA _ _ _ _

1. Shape Designation
   D – Designates a disk
   S – Designates a square
2. Nominal Shape Dimensions
   D78 – 32mm
   S66 – 25mm
   S75 – 34mm
   D75 – 40mm
3. Lead Configuration code
   (refer to tabbed-lead codes chart)
4. Material Identifier, zinc-oxide varistor
5. AC Voltage Rating code, 2 significant figures plus number of zeroes that follow, e.g. 511 is 510 VAC
6. Special Instructions code, RA is standard
7. Energy Rating code, up to 4 numbers
   (refer to ratings tables)

Standard Marking

Minimum marking information shall consist of an abbreviated style designation and, when space is available, the manufacturer's initials "MDC" or the company logo. The abbreviated style designation is dependent upon the configuration of the component. In other words, the abbreviation for the disk shaped components will be different than for the square shaped components. The marking will include a "2X" if the component has a dual configuration.

An example for a disk component,

MDC
2XZ511
110UL

Where:

2X – Dual configuration
Z – Represents "ZOV"
511 – AC voltage rating code
110 – Energy rating code
UL – UL recognition if applicable

An example for a square component,

MDC
C5S
151UL

Where:

C5 – Represents 25mm nominal ceramic size
S – Designates square
151 – AC voltage rating code
UL – UL recognition if applicable

The codes for the square components are based on the following number system:

A – 0
B – 1
C – 2
D – 3
E – 4
F – 5

Consequently, the "C5" designation in the above example represents the number 25.

A manufacturing date code is available upon request. Other safety agency designations are included if applicable.

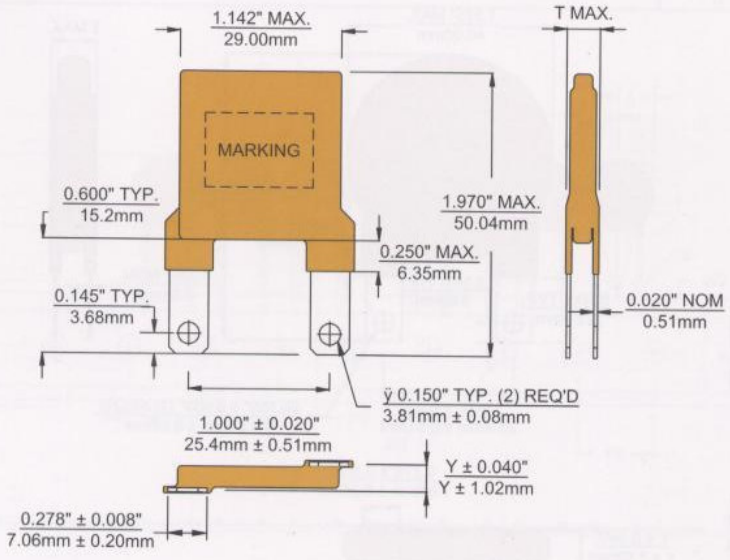
How to Order the High Energy Series

The following specifications tables provide a way to match the Maida style number to a varistor that provides the necessary specifications for a specific application. Once the general style number is obtained, it will be necessary to determine the required lead configuration. Custom lead configurations are available. Maida ordering code may be used for our Standard High Energy varistor.

25mm Single Square

Maida Ordering Code	Maida Style Number	Recognitions To Safety Agency Standards						Minimum Marking	Maximum Ratings				Electrical Characteristics				
									Continuous		Transient		Varistor Voltage @1 mA DC		Max Clamping Voltage (@Test Current)		Typical Cap.
									Applied Voltage		Energy 10 x 1000 µsec	Peak Current 8 x 20 µsec # Pulses 1			(8 x 20 µsec)		1 V rms @1kHz
		A	B	C	D	E	F		(AC)	(DC)	(J)	(A)	Vmin (V)	Vmax (V)	(V)	(A)	(pF)
SV25K131	S6680ZOV131RA180	X		X				C5S-131UL	130	175	180	20000	184	224	340	100	4500
SV25K141	S6680ZOV141RA190	X		X				C5S-141UL	140	180	190	20000	198	242	360	100	4000
SV25K151	S6680ZOV151RA200	X		X				C5S-151UL	150	200	200	20000	212	259	395	100	3700
SV25K181	S6680ZOV181RA250	X		X				C5S-181UL	180	230	250	20000	255	311	465	100	3200
SV25K211	S6680ZOV211RA270	X		X				C5S-211UL	210	270	270	20000	297	363	545	100	2700
SV25K231	S6680ZOV231RA290	X		X				C5S-231UL	230	300	290	20000	326	397	595	100	2500
SV25K251	S6680ZOV251RA310	X		X				C5S-251UL	250	330	330	20000	354	432	650	100	2300
SV25K271	S6680ZOV271RA330	X		X				C5S-271UL	270	360	340	20000	382	466	710	100	2100
SV25K301	S6680ZOV301RA350	X		X				C5S-301UL	300	390	350	20000	425	518	790	100	1900
SV25K321	S6680ZOV321RA360	X		X				C5S-321UL	320	420	360	20000	453	553	850	100	1800
SV25K361	S6680ZOV361RA370	X		X				C5S-361UL	360	470	370	20000	522	638	960	100	1500
SV25K391	S6680ZOV391RA380	X		X				C5S-391UL	390	505	380	20000	552	674	1025	100	1500
SV25K421	S6680ZOV421RA390	X		X				C5S-421UL	420	560	390	20000	594	725	1120	100	1400
SV25K461	S6680ZOV461RA430	X		X				C5S-461UL	460	615	430	20000	651	795	1240	100	1200
SV25K481	S6680ZOV481RA440	X		X				C5S-481UL	480	640	440	20000	679	829	1300	100	1200
SV25K511	S6680ZOV511RA450	X		X				C5S-511UL	510	675	450	20000	722	881	1350	100	1100
SV25K551	S6680ZOV551RA480	X		X				C5S-551UL	550	700	480	20000	778	950	1400	100	1000
SV25K581	S6680ZOV581RA520	X		X				C5S-581UL	580	735	520	20000	821	1002	1500	100	990
SV25K621	S6680ZOV621RA550	X		X				C5S-621UL	620	800	550	20000	877	1071	1650	100	920
SV25K681	S6680ZOV681RA620	X		X				C5S-681UL	680	860	620	20000	962	1175	1800	100	840
SV25K751	S6680ZOV751RA670	X		X				C5S-751UL	750	970	670	20000	1062	1300	2100	100	750
SV25K881	S6680ZOV881RA780	X		X				C5S-881UL	880	1150	780	20000	1245	1520	2290	100	560
SV25K102	S6680ZOV102RA860	X		X				C5S-102UL	1000	1200	860	20000	1414	1728	2700	100	570

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 E86730 - Transient Voltage Surge Suppression
B = UL1414 File E38785 - Across - The Line Applications
C = CSA C22.2 File LR33468



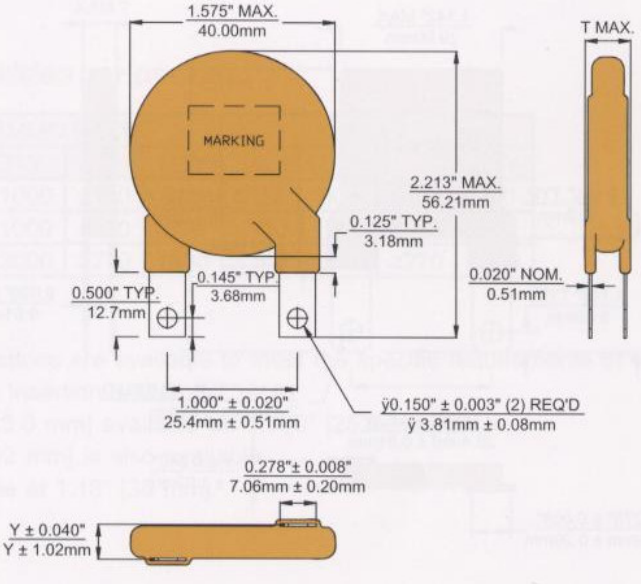
Other lead configurations are available upon request.

SPECIFICATIONS

32mm Single Disc

Maida Ordering Code	Maida Style Number	Recognitions To Safety Agency Standards						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					1 V rms @1kHz
											10 x 1000 µsec	# Pulses 1	Vmin	Vmax	(8 x 20 µsec)		
		A	B	C	D	E	F		(AC)	(DC)	(J)	(A)	(V)	(V)	(V)	(A)	(pF)
DV32K131	D7880ZOV131RA210	X	X	X				Z131-210UL	130	175	210	25000	184	224	340	200	4700
DV32K141	D7880ZOV141RA225	X	X	X				Z141-225UL	140	180	225	25000	198	242	360	200	4300
DV32K151	D7880ZOV151RA240	X	X	X				Z151-240UL	150	200	240	25000	212	259	395	200	4000
DV32K181	D7880ZOV181RA250	X	X	X				Z181-250UL	180	230	250	25000	255	311	465	200	3500
DV32K231	D7880ZOV231RA300	X	X	X				Z231-300UL	230	300	300	25000	326	397	595	200	2800
DV32K251	D7880ZOV251RA330	X	X	X				Z251-330UL	250	330	330	25000	354	432	650	200	2500
DV32K271	D7880ZOV271RA360	X	X	X				Z271-360UL	270	360	360	25000	382	466	710	200	2200
DV32K301	D7880ZOV301RA380	X	X	X				Z301-380UL	300	390	380	25000	425	518	790	200	2000
DV32K321	D7880ZOV321RA430	X	X	X				Z321-430UL	320	420	430	25000	453	553	850	200	1900
DV32K391	D7880ZOV391RA550	X	X	X				Z391-550UL	390	505	550	25000	552	674	1025	200	1600
DV32K421	D7880ZOV421RA600	X	X	X				Z421-600UL	420	560	600	25000	594	725	1120	200	1500
DV32K461	D7880ZOV461RA520	X	X	X				Z461-520UL	460	615	520	25000	651	795	1240	200	1400
DV32K481	D7880ZOV481RA550	X	X	X				Z481-550UL	480	640	550	25000	679	829	1300	200	1300
DV32K511	D7880ZOV511RA580	X	X	X				Z511-580UL	510	675	580	25000	722	881	1350	200	1200
DV32K551	D7880ZOV551RA620	X	X	X				Z551-620UL	550	700	620	25000	778	950	1400	200	1150
DV32K581	D7880ZOV581RA650	X	X	X				Z581-650UL	580	735	650	25000	821	1002	1500	200	1100
DV32K621	D7880ZOV621RA760	X	X	X				Z621-760UL	680	860	760	25000	962	1175	1800	200	900
DV32K751	D7880ZOV751RA800	X	X	X				Z751-800UL	750	970	800	25000	1062	1300	2100	200	800
DV32K881	D7880ZOV881RA850	X	X	X				Z881-850UL	880	1150	850	25000	1245	1520	2290	200	680
DV32K102	D7880ZOV102RA900	X	X					Z102-900UL	1000	1200	900	25000	1414	1728	2700	200	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 E86730 - Transient Voltage Surge Suppression
B = UL1414 File E38785 - Across - The Line Applications
C = CSA C22.2 File LR33468

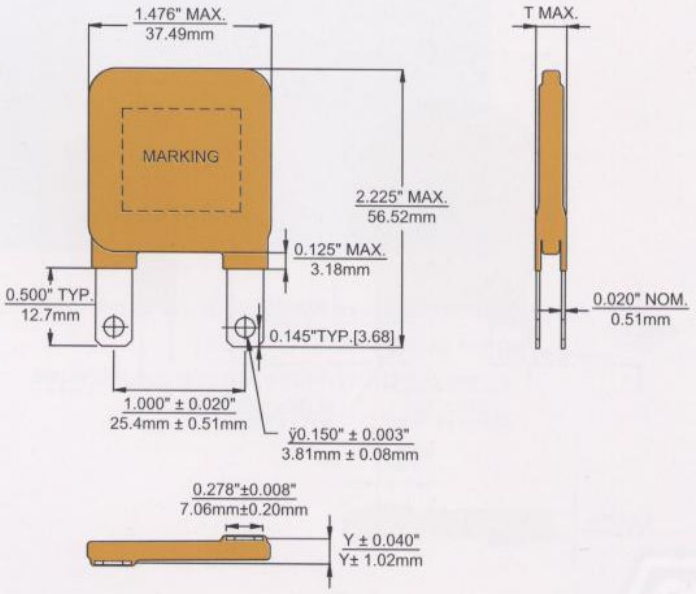


Other lead configurations are available upon request.

34mm Single Square

Maida Ordering Code	Maida Style Number	Recognitions To Safety Agency Standards						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	1	Vmin	Vmax	(8 x 20 µsec)		
		A	B	C	D	E	F		(AC)	(DC)	(J)	(A)	(V)	(V)	(V)	(A)	(pF)
SV34K131	S7580ZOV131RA310	X		X				D4S-131UL	130	175	310	40000	184	224	340	300	10000
SV34K141	S7580ZOV141RA330	X		X				D4S-141UL	140	180	330	40000	198	242	360	300	9000
SV34K151	S7580ZOV151RA360	X		X				D4S-151UL	150	200	360	40000	212	259	395	300	8000
SV34K181	S7580ZOV181RA390	X		X				D4S181UL	180	230	390	40000	255	311	465	300	7100
SV34K211	S7580ZOV211RA430	X		X				D4S-211UL	210	270	430	40000	297	363	640	300	4800
SV34K231	S7580ZOV231RA460	X		X				D4S-231UL	230	300	460	40000	326	397	595	300	5600
SV34K251	S7580ZOV251RA490	X		X				D4S-251UL	250	330	490	40000	354	432	650	300	5000
SV34K271	S7580ZOV271RA550	X		X				D4S-271UL	270	360	550	40000	382	466	710	300	4500
SV34K301	S7580ZOV301RA600	X		X				D4S-301UL	300	390	600	40000	425	518	790	300	4000
SV34K321	S7580ZOV321RA640	X		X				D4S-321UL	320	420	640	40000	453	553	850	300	3800
SV34K361	S7580ZOV361RA710	X		X				D4S-361UL	360	470	710	40000	522	580	960	300	2700
SV34K391	S7580ZOV391RA880	X		X				D4S-391UL	390	505	800	40000	552	674	1025	300	3300
SV34K421	S7580ZOV421RA910	X		X				D4S-421UL	420	560	910	40000	594	725	1120	300	3000
SV34K461	S7580ZOV461RA780	X		X				D4S-461UL	460	615	920	40000	651	795	1240	300	2600
SV34K481	S7580ZOV481RA820	X		X				D4S-481UL	480	640	930	40000	722	881	1350	300	2700
SV34K511	S7580ZOV511RA900	X		X				D4S-511UL	510	675	940	40000	722	881	1350	100	2500
SV34K551	S7580ZOV551RA960	X		X				D4S-551UL	550	700	960	40000	778	950	1500	300	1800
SV34K581	S7580ZOV581RA1000	X		X				D4S-581UL	580	735	1000	40000	821	1002	1575	300	1700
SV34K621	S7580ZOV621RA1040	X		X				D4S-621UL	620	800	1040	40000	877	1071	1670	300	1600
SV34K681	S7580ZOV681RA1100	X		X				D4S-681UL	680	860	1100	40000	962	1175	1815	300	1500
SV34K751	S7580ZOV751RA1200	X		X				D4S-751UL	750	970	1200	40000	1062	1300	2000	300	1300
SV34K881	S7580ZOV881RA1300	X		X				D4S-881UL	880	1150	1300	40000	1245	1520	2290	300	1100
SV34K102	S7580ZOV102RA1400	X		X				D4S-102UL	1000	1200	1400	40000	1414	1728	2550	300	1000

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 E86730 - Transient Voltage Surge Suppression
B = UL1414 File E38785 - Across - The Line Applications
C = CSA C22.2 File LR33468



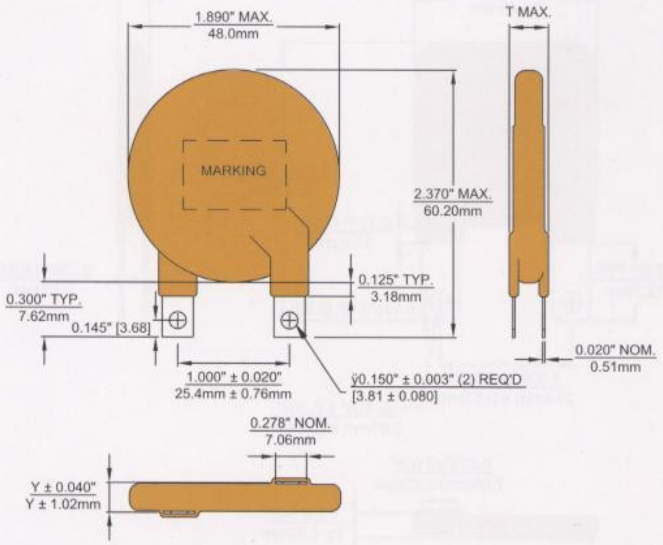
Other lead configurations are available upon request.

SPECIFICATIONS

40mm Single Disc

Maida Ordering Code	Maida Style Number	Recognitions To Safety Agency Standards						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					1 V rms @1kHz
											10 x 1000 µsec	# Pulses 1	Vmin	Vmax	(8 x 20 µsec)		
		A	B	C	D	E	F		(AC)	(DC)	(J)	(A)	(V)	(V)	(V)	(A)	(pF)
DV40K131	D7580ZOV131RA310	X	X	X				Z131-310UL	130	175	310	40000	184	224	340	300	10000
DV40K141	D7580ZOV141RA330	X	X	X				Z141-330UL	140	180	330	40000	198	242	360	300	9000
DV40K151	D7580ZOV151RA360	X	X	X				Z151-360UL	150	200	360	40000	212	259	395	300	8000
DV40K181	D7580ZOV181RA390	X	X	X				Z181-390UL	180	230	390	40000	255	311	465	300	7100
DV40K231	D7580ZOV231RA460	X	X	X				Z231-460UL	230	300	460	40000	326	397	595	300	5600
DV40K251	D7580ZOV251RA490	X	X	X				Z251-490UL	250	330	490	40000	354	432	650	300	5000
DV40K271	D7580ZOV271RA550	X	X	X				Z271-550UL	270	360	550	40000	382	466	710	300	4500
DV40K301	D7580ZOV301RA600	X	X	X				Z301-600UL	300	390	600	40000	425	518	790	300	4000
DV40K321	D7580ZOV321RA640	X	X	X				Z321-640UL	320	420	640	40000	453	553	850	300	3800
DV40K391	D7580ZOV391RA800	X	X	X				Z391-800UL	390	505	800	40000	552	674	1025	300	3300
DV40K421	D7580ZOV421RA910	X	X	X				Z421-910UL	420	560	910	40000	594	725	1120	300	3000
DV40K461	D7580ZOV461RA780	X	X	X				Z461-780UL	460	615	780	40000	651	795	1240	300	2600
DV40K481	D7580ZOV481RA820	X	X	X				Z481-820UL	480	640	820	40000	679	829	1300	300	2700
DV40K511	D7580ZOV511RA900	X	X	X				Z511-900UL	510	675	900	40000	722	881	1350	300	2500
DV40K551	D7580ZOV551RA960	X	X	X				Z551-960UL	550	700	960	40000	778	950	1400	300	2300
DV40K581	D7580ZOV581RA1000	X	X	X				Z581-1000UL	580	735	1000	40000	821	1002	1500	300	2200
DV40K621	D7580ZOV621RA1040	X	X	X				Z621-1040UL	620	800	1040	40000	877	1071	1650	300	2100
DV40K681	D7580ZOV681RA1100	X	X	X				Z681-1100UL	680	860	1100	40000	962	1175	1800	300	2000
DV40K751	D7580ZOV751RA1200	X	X	X				Z751-1200UL	750	970	1200	40000	1062	1300	2100	300	1800
DV40K881	D7580ZOV881RA1300	X	X	X				Z881-1300UL	880	1150	1300	40000	1245	1520	2290	300	1500
DV40K102	D7580ZOV102RA1400	X	X					Z102-1400UL	1000	1200	1400	40000	1414	1728	2700	300	1300

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 E86730 - Transient Voltage Surge Suppression
B = UL1414 File E38785 - Across - The Line Applications
C = CSA C22.2 File LR33468



Other lead configurations are available upon request.