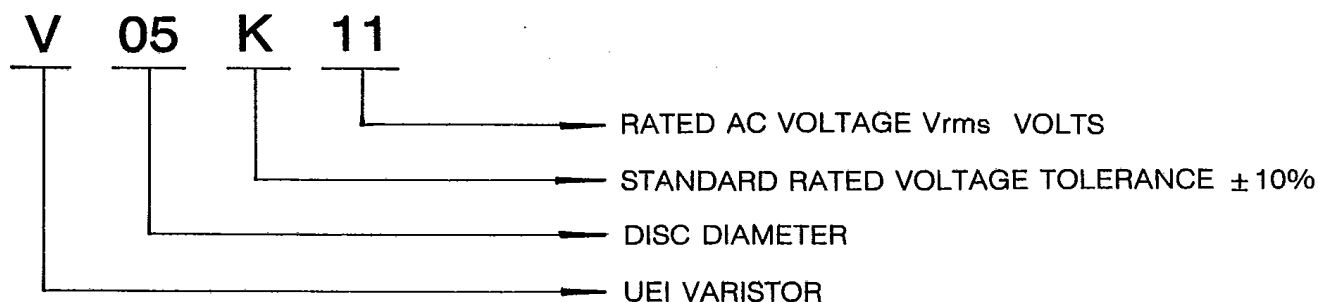


# Metal Oxide Varistors

## PART NUMBER CODE



## SPECIFICATIONS

PART NO.	Rated Voltage		Varistor volt (± 10%) DC Current	Max. Clamping Volt 8/20µs Test Current		Max. Surge Current 8/20µs.1 TIME	Max. Energy Absorption 10/1000 µs	Max. Average Power Disspation	Typical Capacitance @ 1KHz	
	AC	DC		V <sub>N</sub> (dc) Volts	V <sub>c</sub> Volts					
	Vrms	Vdc	I Max			E Max	W Max	PF		
	Volts	Volts	Amps			Joules	Watts	Picofarads		
V05K11 V07K11 V10K11 V14K11 V20K11	11	14	18	40	1	100	0.3	0.01	1700	
39				2.5	250	0.8	0.02	3500		
39				5	500	1.5	0.05	7000		
39				10	1000	3.5	0.1	14000		
37				20	2000	10.0	0.2	28000		
V05K14 V07K14 V10K14 V14K14 V20K14	14	18	22	48	1	100	0.4	0.01	1200	
43				2.5	250	0.9	0.02	2500		
43				5	500	2.0	0.05	5000		
43				10	1000	4.0	0.1	11000		
44				20	2000	13.0	0.2	22000		
V05K17 V07K17 V10K17 V14K17 V20K17	17	22	27	60	1	100	0.5	0.01	1100	
53				2.5	250	1.0	0.02	2200		
53				5	500	2.5	0.05	4500		
53				10	1000	5.0	0.1	9000		
50				20	2000	15.0	0.2	18000		
V05K20 V07K20 V10K20 V14K20 V20K20	20	26	33	73	1	100	0.6	0.01	1000	
64				2.5	250	1.2	0.02	2000		
64				5	500	3.0	0.05	4000		
64				10	1000	6.0	0.1	8000		
58				20	2000	20.0	0.2	16000		
V05K25 V07K25 V10K25 V14K25 V20K25	25	31	39	86	1	100	0.8	0.01	800	
76				2.5	250	1.5	0.02	1600		
76				5	500	3.5	0.05	3200		
76				10	1000	7.0	0.1	6500		
80				20	2000	24.0	0.2	13000		
V05K30 V07K30 V10K30 V14K30 V20K30	30	38	47	104	1	100	1.0	0.01	700	
89				2.5	250	1.8	0.02	1400		
89				5	500	4.5	0.05	2800		
89				10	1000	8.5	0.1	5500		
94				20	2000	30.0	0.2	11000		
V05K35 V07K35 V10K35 V14K35 V20K35	35	45	56	123	1	100	1.0	0.01	600	
110				2.5	250	2.2	0.02	1300		
110				5	500	5.5	0.05	2500		
110				10	1000	10	0.1	5000		
110				20	2000	35	0.2	10000		
V05K40 V07K40 V10K40 V14K40 V20K10	40	56	68	150	1	100	1.2	0.01	500	
135				2.5	250	2.5	0.02	1000		
135				5	500	6.5	0.05	2000		
135				10	1000	12	0.1	4000		
135				20	2000	40	0.2	8000		
V05K50 V07K50 V10K50 V14K50 V20K50	50	66	82	145	5	400	1.7	0.1	400	
135				10	1200	3.5	0.25	800		
135				25	2500	8.0	0.4	1500		
135				50	4500	14.0	0.6	3000		
135				100	6500	27.0	1.0	6000		
V05K60 V07K60 V10K60 V14K60 V20K60	60	85	100	175	5	400	2.0	0.1	350	
165				10	1200	4.0	0.25	700		
165				25	2500	10.0	0.4	1500		
165				50	4500	18.0	0.6	3000		
165				100	6500	30.0	1.0	6000		

# Metal Oxide Varistors

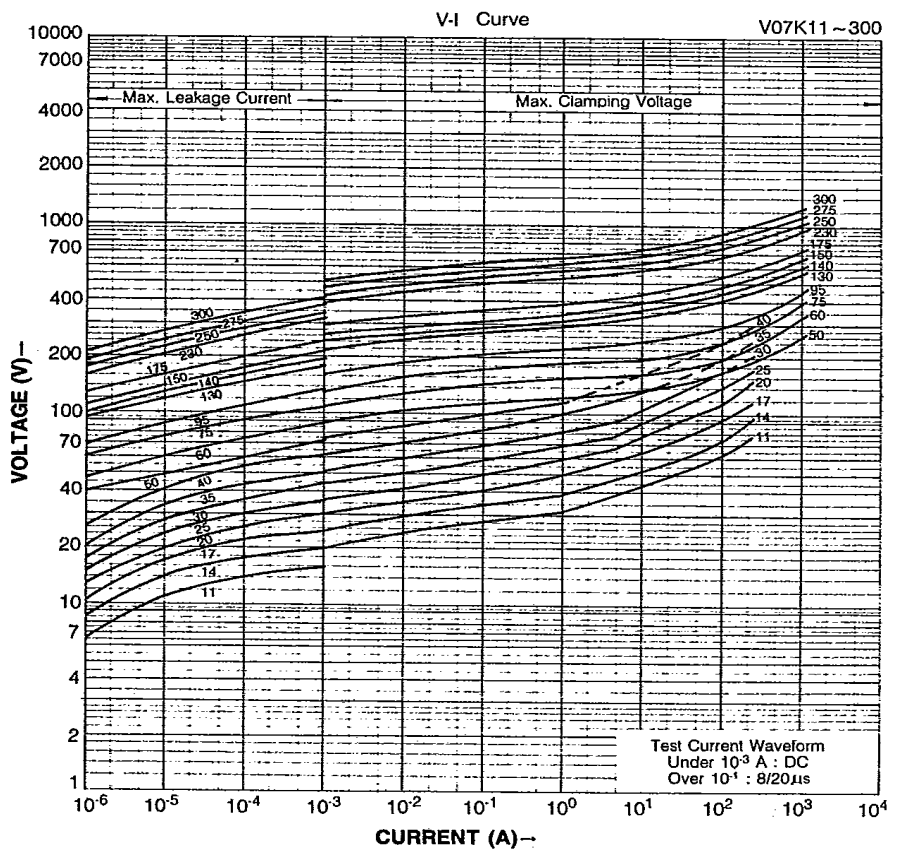
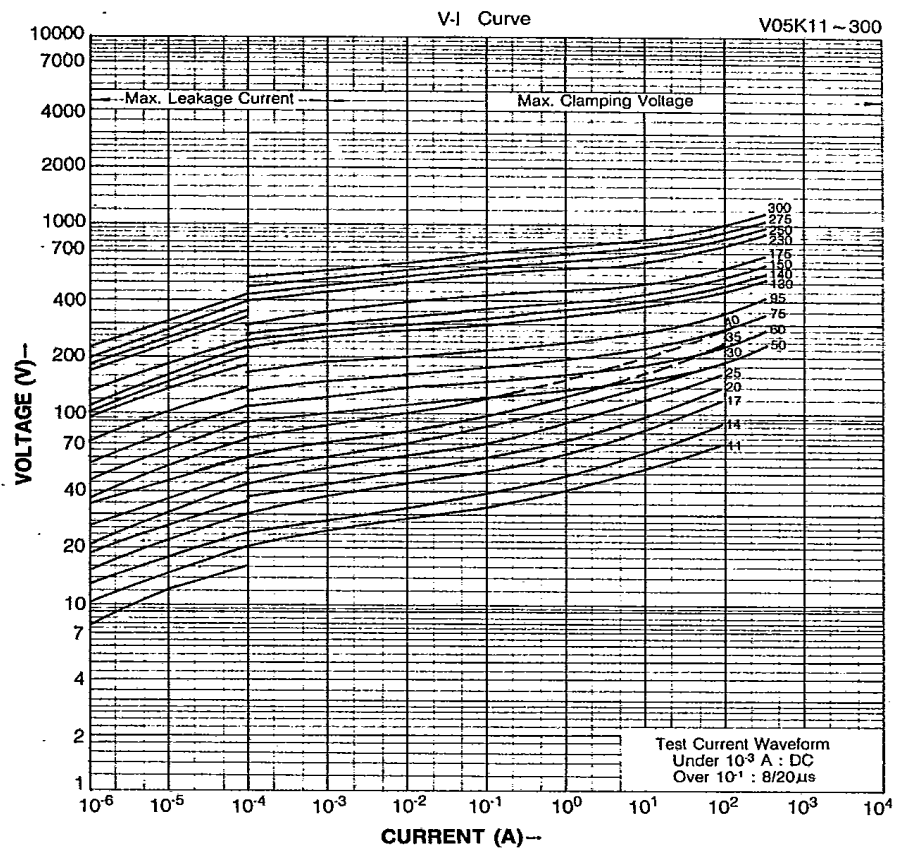
## SPECIFICATIONS

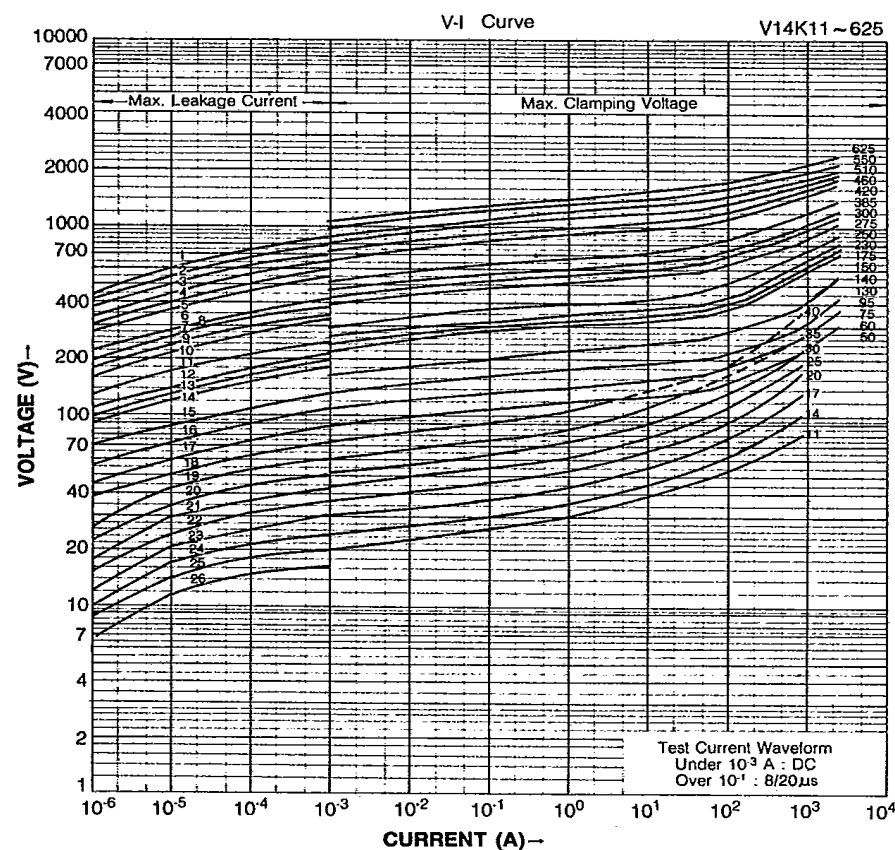
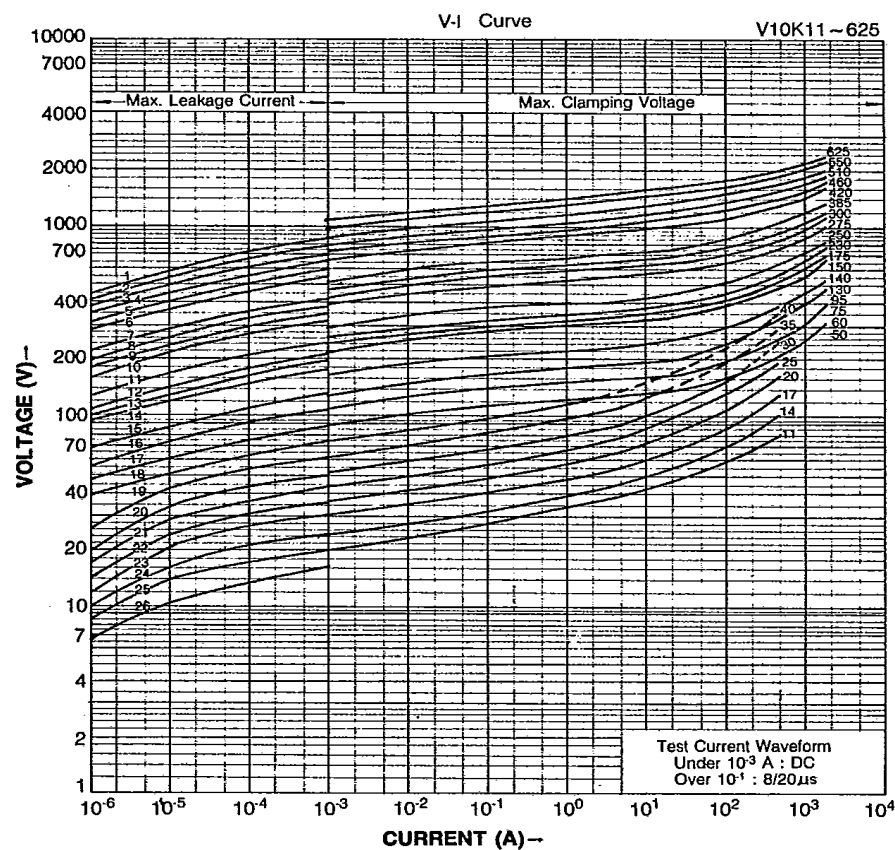
PART NO.	Rated Voltage		Varistor volt (± 10%) DC Current	Max. Clamping Volt 8/20 μs Test Current		Max. Surge Current 8/20 μs, 1 TIME	Max. Energy Absorption 10/1000 μs	Max. Average Power Dissipation	Typical Capacitance @ 1KHz	
	AC	DC		Vc	IP					
	Vrms	Vdc	Vn (dc)							
	Volts	Volts	Volts	Volts	Amps	Amps	Joules	Watts	Picofarads	
V05K75 V07K75 V10K75 V14K75 V20K75	75	102	120	210	5	400	2.5	0.1	350	
				200	10	1200	5.0	0.25	700	
				200	25	2500	12.0	0.4	1300	
				200	50	4500	20.0	0.6	2600	
				200	100	6500	40.0	1.0	5200	
V05K95 V07K95 V10K95 V14K95 V20K95	95	127	150	260	5	400	3.0	0.1	250	
				250	10	1200	6.0	0.25	500	
				250	25	2500	16.0	0.4	1000	
				250	50	4500	25.0	0.6	2000	
				250	100	6500	50.0	1.0	4000	
V05K130 V07K130 V10K130 V14K130 V20K130	130	175	200	355	5	400	4.0	0.1	200	
				340	10	1200	10.0	0.25	400	
				340	25	2500	20.0	0.4	800	
				340	50	4500	35.0	0.6	1600	
				340	100	6500	70.0	1.0	3200	
V05K140 V07K140 V10K140 V14K140 V20K140	140	180	220	380	5	400	4.5	0.1	170	
				360	10	1200	10.0	0.25	350	
				360	25	2500	23.0	0.4	700	
				360	50	4500	40.0	0.6	1400	
				360	100	6500	75.0	1.0	2800	
V05K150 V07K150 V10K150 V14K150 V20K150	150	200	240	415	5	400	5.0	0.1	170	
				395	10	1200	10.0	0.25	350	
				395	25	2500	25.0	0.4	700	
				395	50	4500	40.0	0.6	1300	
				395	100	6500	80.0	1.0	2600	
V05K175 V07K175 V10K175 V14K175 V20K175	175	225	270	475	5	400	6.0	0.1	150	
				455	10	1200	12.0	0.25	300	
				455	25	2500	30.0	0.4	600	
				455	50	4500	50.0	0.6	1200	
				455	100	6500	90.0	1.0	2400	
V05K230 V07K230 V10K230 V14K230 V20K230	230	300	360	620	5	400	7.5	0.1	120	
				595	10	1200	15.0	0.25	250	
				595	25	2500	35.0	0.4	500	
				595	50	4500	65.0	0.6	1000	
				595	100	6500	120.0	1.0	2000	
V05K250 V07K250 V10K250 V14K250 V20K250	250	330	390	675	5	400	8.0	0.1	110	
				650	10	1200	17.0	0.25	220	
				650	25	2500	40.0	0.4	450	
				650	50	4500	70.0	0.6	900	
				650	100	6500	130.0	1.0	1800	
V05K275 V07K275 V10K275 V14K275 V20K275	275	370	430	745	5	400	9.0	0.1	100	
				710	10	1200	20.0	0.25	200	
				710	25	2500	45.0	0.4	400	
				710	50	4500	75.0	0.6	800	
				710	100	6500	140.0	1.0	1600	
V05K300 V07K300 V10K300 V14K300 V20K300	300	405	470	810	5	400	10.0	0.1	80	
				775	10	1200	20.0	0.25	170	
				775	25	2500	45.0	0.4	350	
				775	50	4500	80.0	0.6	700	
				775	100	6500	150.0	1.0	1400	
V10K385 V14K385 V20K385	385	505	620	1025	25	2500	45.0	0.4	270	
				1025	50	4500	85.0	0.6	550	
				1025	100	6500	150.0	1.0	1100	
V10K420 V14K420 V20K420	420	560	680	1120	25	2500	45.0	0.4	250	
				1120	50	4500	90.0	0.6	500	
				1120	100	6500	160.0	1.0	1000	
V10K460 V14K460 V20K460	460	615	750	1240	25	2500	50	0.4	220	
					50	4500	100	0.6	450	
					100	6500	175	1.0	900	
V10K510 V14K510 V20K510	510	675	820	1355	25	2500	55	0.4	220	
					50	4500	110	0.6	440	
					100	6500	190	1.0	880	
V10K550 V14K550 V20K550	550	745	910	1500	25	2500	60	0.4	180	
					50	4500	120	0.6	380	
					100	6500	215	1.0	750	
V10K625 V14K625 V20K625	625	825	1000	1650	25	2500	65	0.4	180	
					50	4500	130	0.6	350	
					100	6500	230	1.0	700	

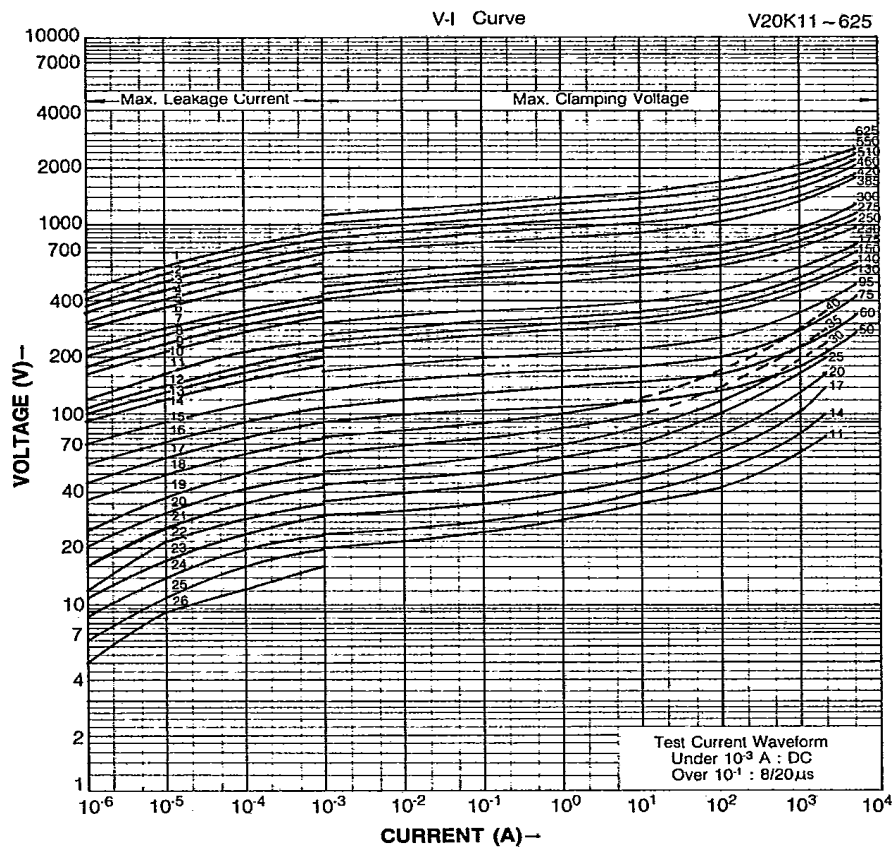
Note \* Varistor Voltage: 5 Series — Vo.1 mA  
7,10,14,20 Series — V1mA

V – I CHARACTERISTICS

The V-I Characteristics of UEI's various series are shown in the following log-log scale. The maximum leakage current is shown on the left of the discontinuity and the maximum clamping voltage for a given surge current value is shown on the right of the discontinuity.

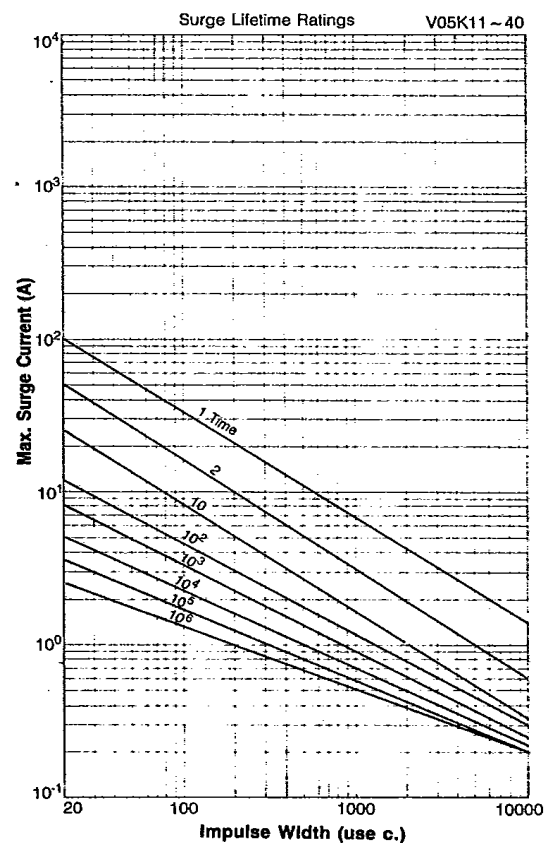




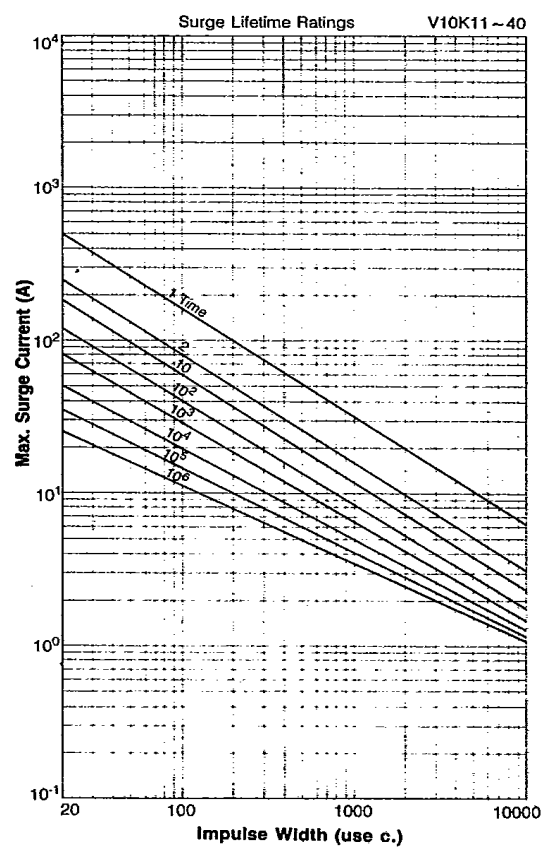
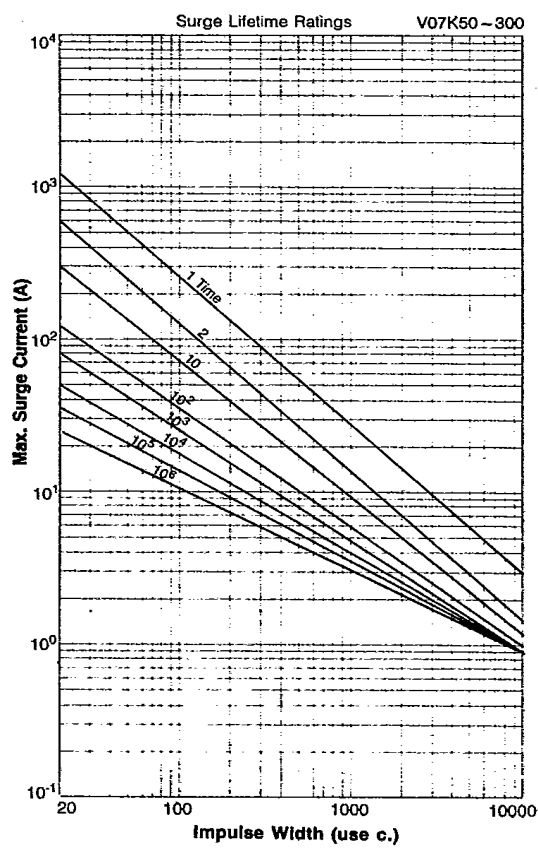
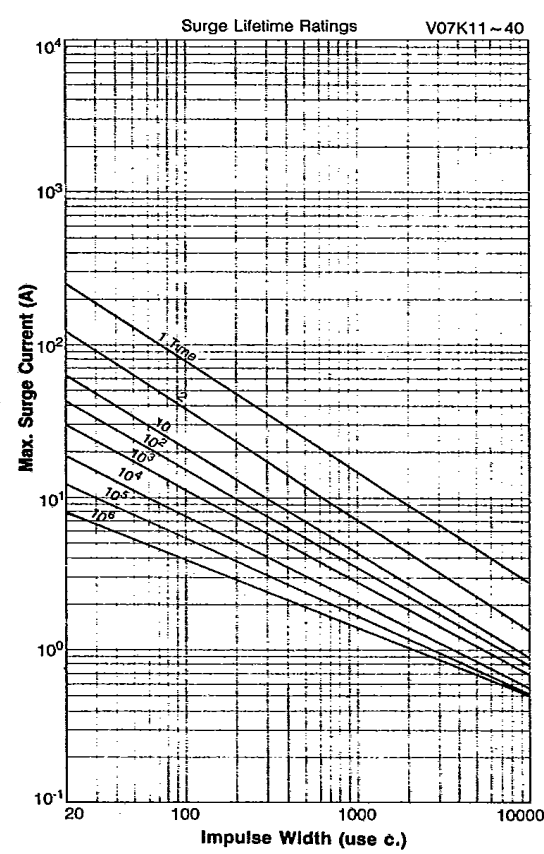
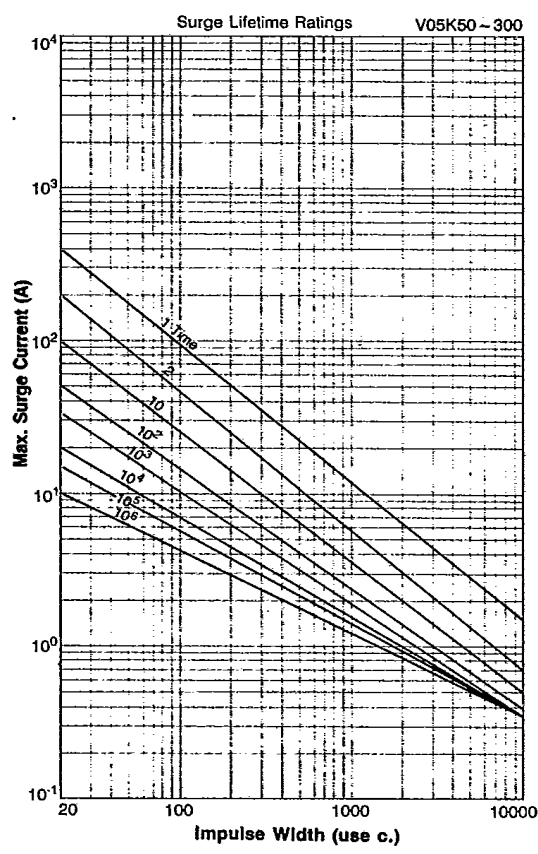


## DERATING CURVES

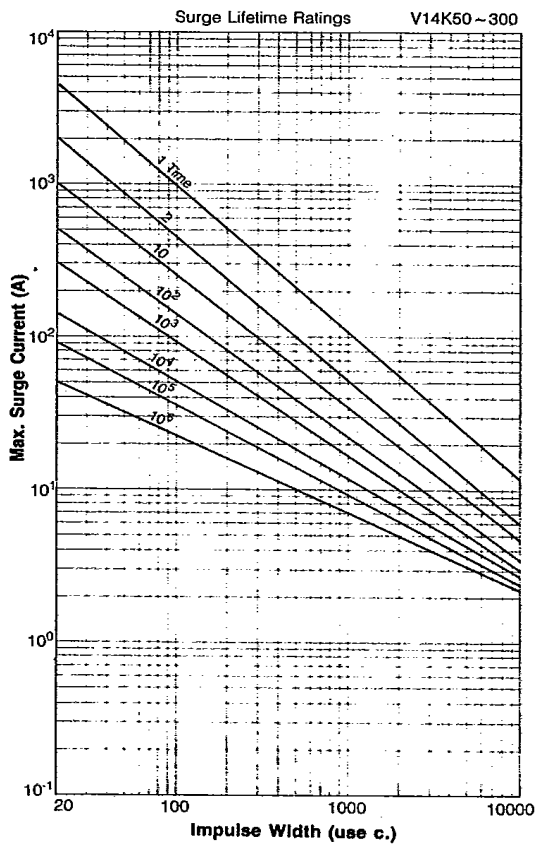
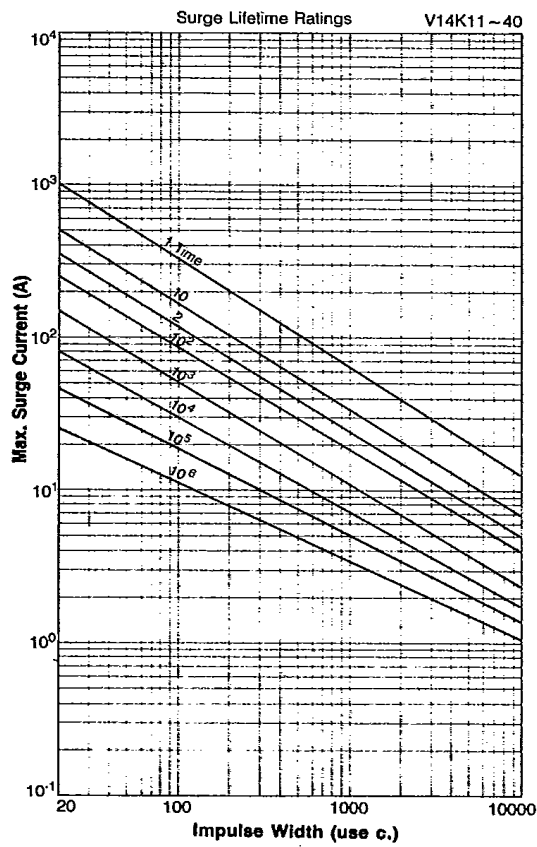
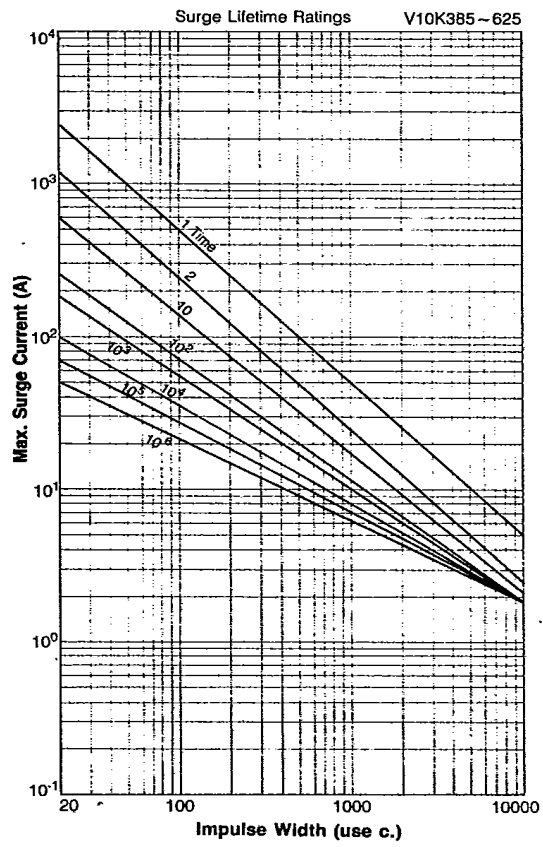
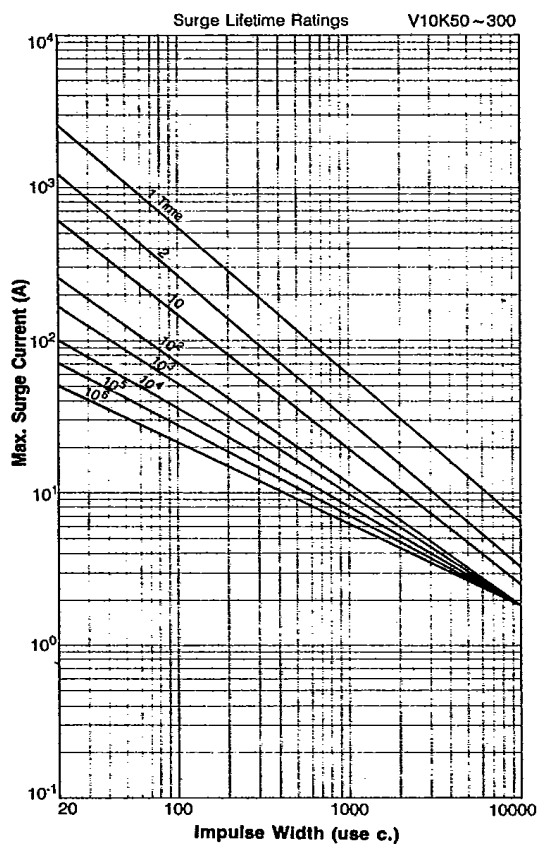
The derating curves are used to determine the maximum number of times a varistor can withstand a current impulse of a given peak amplitude and pulse width (specified waveshape) without a change in varistor voltage of greater than 10%.



Metal Oxide Varistors



Metal Oxide Varistors



Metal Oxide Varistors

