

Description: The CV Series of transient surge suppressors is disc-shaped varistors that can be operated continuously in low and medium voltage electronic circuits, as well as across AC power lines.

Due to their radial lead construction, these components require very little mounting space. They are available in five model sizes from 5 to 20mm and feature a wide range of AC operating voltages from 50V to 680V.



Features:

- AC operating voltage (Vrms) from 50V to 680V
- DC operating voltage (Vdc) from 65V to 820V
- Broad range of current and energy handling capability
- For RMS voltages ≤40V see ZV leaded series
- 5 model sizes available from 5mm to 20mm
- UL, CAC, CEDD approved
- +85°C continuous operating temperature

General Technical Data

Climatic Category	40 / 85 / 56	In accordance with IEC 60068-1
Operating Temperature	-40°C to +85°C	In accordance with CECC 42 000
Storage Temperature Range	-40°C to +125°C	
Threshold Voltage Temperature Coefficient	≤0.05% / °C	
Isolation Voltage Capability	> 2.5kV	In accordance with CECC 42 000
Response Time	< 25 ns	
Insulation Resistance	> 1 Gohm	In accordance with CECC 42 000

How to Order

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2

3

4

5

6

7

8

9

C

V

1

4

0

K

1

4

B

Product

CV

Vrms

voltage

Tolerance

Code

Tol

K

10%

S

Special

Disc Diameter

Size (mm)

5

7

10

14

20

Packaging

Code

Description

B

Bulk

T

Tape and Reel

A

Ammo

Lead Style Option

Code

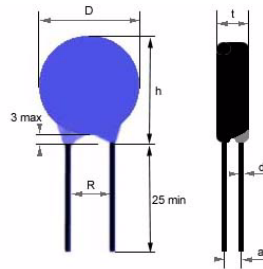
Description

-05

kinked

Standard Packaging Options / Quantities

Series	Voltage	5mm		7mm		10mm		14mm		20mm	
	Range (Vrms)	Reel	Bulk	Reel	Bulk	Reel	Bulk	Reel	Bulk	Reel	Bulk
CV	11 - 17	1,800	1,500	1,500	1,500	1,300	600	N/A	N/A	N/A	N/A
	20 - 75	1,500	1,500	1,500	1,500	1,300	600	700	500	600	300
	95	1,500	1,500	1,500	1,000	1,300	600	600	500	600	300
	115 - 130	1,300	1,500	1,300	1,000	1,000	500	600	500	500	300
	140 - 150	1,200	1,500	1,200	1,000	1,000	500	600	500	500	300
	175	1,200	1,500	1,200	1,000	1,000	500	500	500	500	300
	230	1,000	1,000	1,000	1,000	1,000	500	500	300	400	300
	250 - 275	1,000	1,000	1,000	1,000	800	500	400	300	400	300
	300	N/A	N/A	N/A	1,000	800	500	400	300	400	200
	320	N/A	N/A	N/A	N/A	800	500	400	300	300	200
	385	N/A	N/A	N/A	N/A	700	400	400	300	300	200
	420	N/A	N/A	N/A	N/A	700	400	300	300	300	200
	460 - 550	N/A	N/A	N/A	N/A	600	400	300	300	300	200



Device Ratings and Dimensions

Part Number	V _{RMS} (volts)	V _{DC} (volts)	V _N (volts)	V _C (volts)	I _C (amps)	W _{MAX} (joules)	P _{MAX} (watts)	I _P (amps)	C _{TYP} (pF)	D _{MAX} (mm)	t _{MAX} (mm)	R (mm)	d (mm)	h _{MAX} (mm)
CV50K05	50	65	82	135	5	2.7	0.10	400	350	7	3.5	5	0.6	9.5
CV60K05	60	85	100	165	5	3.0	0.10	400	300	7	3.5	5	0.6	9.5
CV75K05	75	100	120	200	5	4.0	0.10	400	250	7	3.6	5	0.6	9.5
CV95K05	95	125	150	250	5	6.0	0.10	400	200	7	3.8	5	0.6	9.5
CV115K05	115	150	180	300	5	6.0	0.10	400	180	7	4.0	5	0.6	9.5
CV130K05	130	170	205	340	5	7.0	0.10	400	160	7	4.0	5	0.6	9.5
CV140K05	140	180	220	360	5	7.0	0.10	400	150	7	4.1	5	0.6	9.5
CV150K05	150	200	240	395	5	9.0	0.10	400	140	7	4.3	5	0.6	9.5
CV175K05	175	225	270	455	5	9.5	0.10	400	120	7	4.8	5	0.6	9.5
CV230K05	230	300	360	595	5	13.0	0.10	400	95	7	4.8	5	0.6	9.5
CV250K05	250	320	390	650	5	14.0	0.10	400	80	7	5.0	5	0.6	9.5
CV275K05	275	350	430	710	5	16.0	0.10	400	75	7	5.6	5	0.6	9.5

CV50K07	50	65	82	135	10	6.8	0.25	1,200	820	9	3.5	5	0.6	11.5
CV60K07	60	85	100	165	10	7.0	0.25	1,200	680	9	3.5	5	0.6	11.5
CV75K07	75	100	120	200	10	9.0	0.25	1,200	550	9	3.6	5	0.6	11.5
CV95K07	95	125	150	250	10	11.0	0.25	1,200	440	9	3.8	5	0.6	11.5
CV115K07	115	150	180	300	10	13.0	0.25	1,200	360	9	4.0	5	0.6	11.5
CV130K07	130	170	205	340	10	15.0	0.25	1,200	320	9	4.0	5	0.6	11.5
CV140K07	140	180	220	360	10	18.0	0.25	1,200	300	9	4.1	5	0.6	11.5
CV150K07	150	200	240	395	10	18.0	0.25	1,200	280	9	4.3	5	0.6	11.5
CV175K07	175	225	270	455	10	21.0	0.25	1,200	250	9	4.8	5	0.6	11.5
CV230K07	230	300	360	595	10	28.0	0.25	1,200	190	9	4.8	5	0.6	11.5
CV250K07	250	320	390	650	10	30.0	0.25	1,200	180	9	5.0	5	0.6	11.5
CV275K07	275	350	430	710	10	35.0	0.25	1,200	160	9	5.6	5	0.6	11.5
CV300K07	300	385	470	775	10	37.0	0.25	1,200	150	9	5.8	5	0.6	11.5

Device Ratings and Dimensions

Part Number	V _{RMS} (volts)	V _{DC} (volts)	V _N (volts)	V _C (volts)	I _C (amps)	W _{MAX} (joules)	P _{MAX} (watts)	I _P (amps)	C _{TYP} (pF)	D _{MAX} (mm)	t _{MAX} (mm)	R (mm)	d (mm)	h _{MAX} (mm)
CV50K10	50	65	82	135	25	17	0.4	2,500	1,400	12.5	4.1	7.5	0.8	15
CV60K10	60	85	100	165	25	16	0.4	2,500	1,200	12.5	4.1	7.5	0.8	15
CV75K10	75	100	120	200	25	21	0.4	2,500	950	12.5	4.2	7.5	0.8	15
CV95K10	95	125	150	250	25	25	0.4	2,500	750	12.5	4.3	7.5	0.8	15
CV115K10	115	150	180	300	25	30	0.4	2,500	650	12.5	4.3	7.5	0.8	15
CV130K10	130	170	205	340	25	34	0.4	2,500	580	12.5	4.5	7.5	0.8	15
CV140K10	140	180	220	360	25	37	0.4	2,500	540	12.5	4.6	7.5	0.8	15
CV150K10	150	200	240	395	25	41	0.4	2,500	510	12.5	4.6	7.5	0.8	15
CV175K10	175	225	270	455	25	46	0.4	2,500	440	12.5	4.9	7.5	0.8	15
CV230K10	230	300	360	595	25	62	0.4	2,500	350	12.5	5.4	7.5	0.8	15
CV250K10	250	320	390	650	25	68	0.4	2,500	320	12.5	5.6	7.5	0.8	15
CV275K10	275	350	430	710	25	78	0.4	2,500	300	12.5	6.0	7.5	0.8	15
CV300K10	300	385	470	775	25	82	0.4	2,500	280	12.5	6.1	7.5	0.8	15
CV320K10	320	420	510	840	25	91	0.4	2,500	260	12.5	6.8	7.5	0.8	15
CV385K10	385	505	620	1025	25	93	0.4	2,500	230	12.5	7.4	7.5	0.8	16
CV420K10	420	560	680	1120	25	97	0.4	2,500	210	12.5	7.3	7.5	0.8	16
CV460K10	460	615	750	1240	25	106	0.4	2,500	200	12.5	7.8	7.5	0.8	16
CV510K10	510	670	820	1355	25	115	0.4	2,500	180	12.5	8.2	7.5	0.8	16
CV550K10	550	745	910	1500	25	134	0.4	2,500	170	12.5	8.8	7.5	0.8	16
CV575K10	575	750	950	1570	25	136	0.4	2,500	165	12.5	8.9	7.5	0.8	16
CV625K10	625	825	1000	1650	25	140	0.4	2,500	160	12.5	9.1	7.5	0.8	16
CV680K10	680	895	1100	1815	25	155	0.4	2,500	150	12.5	9.7	7.5	0.8	16

CV50K14	50	65	82	135	50	35	0.6	4,500	2,600	16.5	4.1	7.5	0.8	20
CV60K14	60	85	100	165	50	34	0.6	4,500	2,200	16.5	4.2	7.5	0.8	20
CV75K14	75	100	120	200	50	41	0.6	4,500	1,800	16.5	4.2	7.5	0.8	20
CV95K14	95	125	150	250	50	52	0.6	4,500	1,400	16.5	4.3	7.5	0.8	20
CV115K14	115	150	180	300	50	62	0.6	4,500	1,200	16.5	4.4	7.5	0.8	20
CV130K14	130	170	205	340	50	68	0.6	4,500	1,050	16.5	4.6	7.5	0.8	20
CV140K14	140	180	220	360	50	75	0.6	4,500	980	16.5	4.7	7.5	0.8	20
CV150K14	150	200	240	395	50	81	0.6	4,500	900	16.5	4.8	7.5	0.8	20
CV175K14	175	225	270	455	50	95	0.6	4,500	800	16.5	4.9	7.5	0.8	20
CV230K14	230	300	360	595	50	126	0.6	4,500	620	16.5	5.5	7.5	0.8	20
CV250K14	250	320	390	650	50	135	0.6	4,500	580	16.5	5.7	7.5	0.8	20
CV275K14	275	350	430	710	50	150	0.6	4,500	530	16.5	6.0	7.5	0.8	20
CV300K14	300	385	470	775	50	169	0.6	4,500	490	16.5	6.1	7.5	0.8	20
CV320K14	320	420	510	840	50	184	0.6	4,500	460	16.5	6.8	7.5	0.8	20
CV385K14	385	505	620	1025	50	193	0.6	4,500	390	16.5	7.4	7.5	0.8	20
CV420K14	420	560	680	1120	50	202	0.6	4,500	370	16.5	7.4	7.5	0.8	20
CV460K14	460	615	750	1240	50	220	0.6	4,500	340	16.5	7.8	7.5	0.8	20
CV510K14	510	670	820	1355	50	227	0.6	4,500	310	16.5	8.2	7.5	0.8	20
CV550K14	550	745	910	1500	50	364	0.6	4,500	290	16.5	8.8	7.5	0.8	20
CV575K14	575	750	950	1570	50	270	0.6	4,500	280	16.5	8.9	7.5	0.8	20
CV625K14	625	825	1000	1650	50	280	0.6	4,500	270	16.5	9.2	7.5	0.8	20
CV680K14	680	895	1100	1815	50	310	0.6	4,500	250	16.5	9.8	7.5	0.8	20

Device Ratings and Dimensions

Part Number	V _{RMS} (volts)	V _{DC} (volts)	V _N (volts)	V _C (volts)	I _C (amps)	W _{MAX} (joules)	P _{MAX} (watts)	I _P (amps)	C _{TYP} (pF)	D _{MAX} (mm)	t _{MAX} (mm)	R (mm)	d (mm)	h _{MAX} (mm)
CV50K20	50	65	82	135	100	75	1	6,500	5,000	22.5	4.5	10	1	26
CV60K20	60	85	100	165	100	71	1	6,500	4,100	22.5	4.6	10	1	26
CV75K20	75	100	120	200	100	81	1	6,500	3,300	22.5	4.6	10	1	26
CV95K20	95	125	150	250	100	106	1	6,500	2,600	22.5	4.6	10	1	26
CV115K20	115	150	180	300	100	118	1	6,500	2,100	22.5	4.8	10	1	26
CV130K20	130	170	205	340	100	142	1	6,500	1,900	22.5	5.0	10	1	26
CV140K20	140	180	220	360	100	157	1	6,500	1,800	22.5	5.1	10	1	26
CV150K20	150	200	240	395	100	170	1	6,500	1,600	22.5	5.2	10	1	26
CV175K20	175	225	270	455	100	193	1	6,500	1,400	22.5	5.3	10	1	26
CV230K20	230	300	360	595	100	258	1	6,500	1,100	22.5	5.9	10	1	26
CV250K20	250	320	390	650	100	276	1	6,500	1,000	22.5	6.1	10	1	26
CV275K20	275	350	430	710	100	304	1	6,500	900	22.5	6.3	10	1	26
CV300K20	300	385	470	775	100	350	1	6,500	850	22.5	6.6	10	1	26
CV320K20	320	420	510	840	100	388	1	6,500	800	22.5	6.8	10	1	27
CV385K20	385	505	620	1025	100	396	1	6,500	650	22.5	7.5	10	1	27
CV420K20	420	560	680	1120	100	418	1	6,500	620	22.5	7.8	10	1	27
CV460K20	460	615	750	1240	100	460	1	6,500	560	22.5	8.2	10	1	27
CV510K20	510	670	820	1355	100	478	1	6,500	510	22.5	8.7	10	1	27
CV550K20	550	745	910	1500	100	515	1	6,500	480	22.5	9.2	10	1	27
CV575K20	575	750	950	1570	100	525	1	6,500	460	22.5	9.4	10	1	27
CV625K20	625	825	1000	1650	100	565	1	6,500	420	22.5	9.7	10	1	27
CV680K20	680	895	1100	1815	100	620	1	6,500	390	22.5	10.2	10	1	27