Description:

The CVH Series of transient surge suppressors is an extended version of CV Series of disc-shaped varistors. The CVH Series consists of 7 mm, 10 mm, 14 mm, 20 mm and 23 mm sized varistors of extremely high current and energy capabilities.

They provide the increased level of protection necessary for the transients expected in telecommunication and AC power networks. AC operating voltage of these varistors ranges from 60V to 550V.

Features:

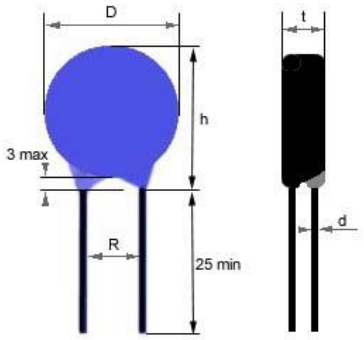
- AC operating voltage (Vrms) from 60V to 550V
- DC operating voltage (Vdc) from 85V to 745
- Broad range of current and energy handling capability
- +85ºC continuous operating temperature
- 5 model sizes available from 7 mm to 23 mm
- Sizes 7 mm, 10 mm, 14 mm, 20 mm
- UL1449, 3rd Ed. and CSA C22.2 certified
- 100% RoHS compliant and lead free without exemption
- Halogen free
- REACH compliant

General Technical Data	
Climatic Category	40 / 85 / 56
Operating Temperature	-40ºC to +85ºC
Storage Temperature Range	-40ºC to +125ºC
Threshold Voltage Temperature Coefficient	≤0.05% /ºC
Isolation Voltage Capability	> 2.5 kV
Response Time	< 25 ns
Insulation Resistance	> 1 Gohm

Standard Packaging Options / Quantities

Series	Range (Vrms)	Disc Diameter								
		7 mm		10 mm		14 mm		20 mm		23 mm
		Reel	Bulk	Reel	Bulk	Reel	Bulk	Reel	Bulk	Bulk
CVH	60 - 75	1500	1500	1300	600	700	500	600	300	N/A
	95	1500	1000	1300	600	600	500	600	300	N/A
	115 - 130	1300	1000	1000	500	600	500	500	300	250
	140 - 150	1200	1000	1000	500	600	500	500	300	250
	175	1200	1000	1000	500	500	500	500	300	250
	230	1000	1000	1000	500	500	300	400	300	150
	250 - 275	1000	1000	800	500	400	300	400	300	150
	300	900	1000	800	500	400	300	400	200	150
	320	N/A	N/A	800	500	400	300	300	200	150
	385	N/A	N/A	700	400	400	300	300	200	150
	420	N/A	N/A	700	400	300	300	300	200	150
	460 - 550	N/A	N/A	600	400	300	300	300	200	150

Device Ratings and Dimensions



Part Number	V_{RMS} (volts)	V_{DC} (volts)	V_N (1 mA) (volts)	V_C (volts)	I_C (8/20 uSec) (amps)	W_{MAX} (10/1000 uSec) (joules)	P_{MAX} (watts)	I_{MAX} (8/20 uSec) (amps)	C_{TYP} (@ 1kHz) (pF)	D_{MAX} (mm)	t_{MAX} (mm)	R (mm)	d (mm)	h_{MAX} (mm)
CVH60K07	60	85	100	165	10	9	0.25	1,750	680	9	3.5	5	0.6	11.5
CVH60K10	60	85	100	165	25	18	0.4	3,500	1,200	12.5	4.1	7.5	0.8	15
CVH60K14	60	85	100	165	50	38	0.6	6,000	2,200	16.5	4.2	7.5	0.8	20
CVH60K20	60	85	100	165	100	77	1	12,000	4,100	22.5	4.6	10	1	26
CVH75K07	75	100	120	200	10	11	0.25	1,750	550	9	3.6	5	0.6	11.5
CVH75K10	75	100	120	200	25	24	0.4	3,500	950	12.5	4.2	7.5	0.8	15
CVH75K14	75	100	120	200	50	46	0.6	6,000	1,800	16.5	4.2	7.5	0.8	20
CVH75K20	75	100	120	200	100	88	1	12,000	3,300	22.5	4.6	10	1	26
CVH95K07	95	125	150	250	10	14	0.25	1,750	440	9	3.8	5	0.6	11.5
CVH95K10	95	125	150	250	25	28	0.4	3,500	750	12.5	4.3	7.5	0.8	15
CVH95K14	95	125	150	250	50	58	0.6	6,000	1,400	16.5	4.3	7.5	0.8	20
CVH95K20	95	125	150	250	100	116	1	12,000	2,600	22.5	4.6	10	1	26
CVH115K07	115	150	180	300	10	16	0.25	1,750	360	9	4	5	0.6	11.5
CVH115K10	115	150	180	300	25	34	0.4	3,500	650	12.5	4.3	7.5	0.8	15
CVH115K14	115	150	180	300	50	71	0.6	6,000	1,200	16.5	4.4	7.5	0.8	20
CVH115K20	115	150	180	300	100	128	1	12,000	2,100	22.5	4.8	10	1	26
CVH130K07	130	170	205	340	10	19	0.25	1,750	360	9	4	5	0.6	11.5
CVH130K10	130	170	205	340	25	38	0.4	3,500	580	12.5	4.5	7.5	0.8	15
CVH130K14	130	170	205	340	50	77	0.6	6,000	1,050	16.5	4.6	7.5	0.8	20
CVH130K20	130	170	205	340	100	154	1	12,000	1,900	22.5	5	10	1	26
CVH130K23	130	170	205	340	100	172	1	15,000	3,500	25	5	10	1	27
CVH140K07	140	180	220	360	10	22	0.25	1,750	300	9	4.1	5	0.6	11.5
CVH140K10	140	180	220	360	25	42	0.4	3,500	540	12.5	4.6	7.5	0.8	15
CVH140K14	140	180	220	360	50	85	0.6	6,000	980	16.5	4.7	7.5	0.8	20
CVH140K20	140	180	220	360	100	170	1	12,000	1,800	22.5	5.1	10	1	26
CVH140K23	140	180	220	360	100	190	1	15,000	3,200	25	5.1	10	1	27
CVH150K07	150	200	240	395	10	23	0.25	1,750	280	9	4.3	5	0.6	11.5
CVH150K10	150	200	240	395	25	46	0.4	3,500	510	12.5	4.6	7.5	0.8	15
CVH150K14	150	200	240	395	50	92	0.6	6,000	900	16.5	4.8	7.5	0.8	20
CVH150K20	150	200	240	395	100	185	1	12,000	1,600	22.5	5.2	10	1	26
CVH150K23	150	200	240	395	100	207	1	15,000	2,900	25	5.2	10	1	27
CVH175K07	175	225	270	455	10	26	0.25	1,750	250	9	4.8	5	0.6	11.5
CVH175K10	175	225	270	455	25	53	0.4	3,500	440	12.5	4.9	7.5	0.8	15
CVH175K14	175	225	270	455	50	108	0.6	6,000	800	16.5	4.9	7.5	0.8	20
CVH175K20	175	225	270	455	100	210	1	12,000	1,400	22.5	5.3	10	1	26
CVH175K23	175	225	270	455	100	235	1	15,000	2,500	25	5.3	10	1	27
CVH230K07	230	300	360	595	10	35	0.25	1,750	190	9	4.8	5	0.6	11.5
CVH230K10	230	300	360	595	25	71	0.4	3,500	350	12.5	5.4	7.5	0.8	15
CVH230K14	230	300	360	595	50	143	0.6	6,000	620	16.5	5.5	7.5	0.8	20
CVH230K20	230	300	360	595	100	280	1	12,000	1,100	22.5	5.9	10	1	26
CVH230K23	230	300	360	595	100	313	1	15,000	2,200	25	5.9	10	1	27

Device Ratings and Dimensions (cont.)														
Part Number	V_{RMS} (volts)	V_{DC} (volts)	V_N (1 mA) (volts)	V_C (volts)	I_C (8/20 uSec) (amps)	W_{MAX} (10/1000 uSec) (joules)	P_{MAX} (watts)	I_{MAX} (8/20 uSec) (amps)	C_{TYP} (@ 1kHz) (pF)	D_{MAX} (mm)	t_{MAX} (mm)	R (mm)	d (mm)	h_{MAX} (mm)
CVH250K07	250	320	390	650	10	38	0.25	1,750	180	9	5	5	0.6	11.5
CVH250K10	250	320	390	650	25	77	0.4	3,500	320	12.5	5.6	7.5	0.8	15
CVH250K14	250	320	390	650	50	154	0.6	6,000	580	16.5	5.7	7.5	0.8	20
CVH250K20	250	320	390	650	100	300	1	12,000	1,000	22.5	6.1	10	1	26
CVH250K23	250	320	390	650	100	336	1	15,000	1,900	25	6.1	10	1	27
CVH275K07	275	350	430	710	10	44	0.25	1,750	160	9	5.6	5	0.6	11.5
CVH275K10	275	350	430	710	25	88	0.4	3,500	300	12.5	5.8	7.5	0.8	15
CVH275K14	275	350	430	710	50	170	0.6	6,000	530	16.5	5.9	7.5	0.8	20
CVH275K20	275	350	430	710	100	330	1	12,000	900	22.5	6.3	10	1	26
CVH275K23	275	350	430	710	100	370	1	15,000	1,600	25	6.3	10	1	27
CVH300K07	300	385	470	775	10	46	0.25	1,750	150	9	5.8	5	0.6	11.5
CVH300K10	300	385	470	775	25	93	0.4	3,500	280	12.5	6.1	7.5	0.8	15
CVH300K14	300	385	470	775	50	192	0.6	6,000	490	16.5	6.1	7.5	0.8	20
CVH300K20	300	385	470	775	100	380	1	12,000	850	22.5	6.6	10	1	27
CVH300K23	300	385	470	775	100	426	1	15,000	1,300	25	6.6	10	1	29
CVH320K10	320	420	510	840	25	104	0.4	3,500	260	12.5	5.9	7.5	0.8	16
CVH320K14	320	420	510	840	50	209	0.6	6,000	460	16.5	6.5	7.5	0.8	21
CVH320K20	320	420	510	840	100	420	1	12,000	800	22.5	6.8	10	1	27
CVH320K23	320	420	510	840	100	470	1	15,000	1,100	25	6.8	10	1	29
CVH385K10	385	505	620	1025	25	106	0.4	3,500	230	12.5	6.4	7.5	0.8	16
CVH385K14	385	505	620	1025	50	219	0.6	6,000	390	16.5	6.9	7.5	0.8	21
CVH385K20	385	505	620	1025	100	430	1	12,000	650	22.5	7.5	10	1	27
CVH385K23	385	505	620	1025	100	480	1	15,000	1,000	25	7.5	10	1	29
CVH420K10	420	560	680	1120	25	110	0.4	3,500	210	12.5	7.3	7.5	0.8	16
CVH420K14	420	560	680	1120	50	230	0.6	6,000	370	16.5	7.4	7.5	0.8	21
CVH420K20	420	560	680	1120	100	460	1	12,000	620	22.5	7.8	10	1	27
CVH420K23	420	560	680	1120	100	515	1	15,000	950	25	7.8	10	1	29
CVH460K10	460	615	750	1240	25	120	0.4	3,500	200	12.5	7.8	7.5	0.8	16
CVH460K14	460	615	750	1240	50	250	0.6	6,000	340	16.5	7.8	7.5	0.8	21
CVH460K20	460	615	750	1240	100	500	1	12,000	560	22.5	8.2	10	1	27
CVH460K23	460	615	750	1240	100	560	1	15,000	900	25	8.2	10	1	29
CVH510K10	510	670	820	1355	25	131	0.4	3,500	180	12.5	8.2	7.5	0.8	16
CVH510K14	510	670	820	1355	50	258	0.6	6,000	310	16.5	8.2	7.5	0.8	21
CVH510K20	510	670	820	1355	100	520	1	12,000	510	22.5	8.7	10	1	27
CVH510K23	510	670	820	1355	100	582	1	15,000	650	25	8.7	10	1	29
CVH550K10	550	745	910	1500	25	153	0.4	3,500	170	12.5	8.8	7.5	0.8	16
CVH550K14	550	745	910	1500	50	300	0.6	6,000	290	16.5	8.8	7.5	0.8	21
CVH550K20	550	745	910	1500	100	560	1	12,000	480	22.5	9.2	10	1	27
CVH550K23	550	745	910	1500	100	627	1	15,000	800	25	9.2	10	1	29

RoHS Compliance

Stackpole Electronics has joined the worldwide effort to reduce the amount of lead in electronic components and to meet the various regulatory requirements now prevalent, such as the European Union's directive regarding "Restrictions on Hazardous Substances" (RoHS 3). As part of this ongoing program, we periodically update this document with the status regarding the availability of our compliant components. All our standard part numbers are compliant to EU Directive 2011/65/EU of the European Parliament as amended by Directive (EU) 2015/863/EU as regards the list of restricted substances.

RoHS Compliance Status						
Standard Product Series	Description	Package / Termination Type	Standard Series RoHS Compliant	Lead-Free Termination Composition	Lead-Free Mfg. Effective Date (Std Product Series)	Lead-Free Effective Date Code (YY/WW)
CVH	Medium Voltage Leaded Varistor	Leaded	YES	100% Matte Sn	Always	Always

"Conflict Metals" Commitment

We at Stackpole Electronics, Inc. are joined with our industry in opposing the use of metals mined in the "conflict region" of the eastern Democratic Republic of the Congo (DRC) in our products. Recognizing that the supply chain for metals used in the electronics industry is very complex, we work closely with our own suppliers to verify to the extent possible that the materials and products we supply do not contain metals sourced from this conflict region. As such, we are in compliance with the requirements of Dodd-Frank Act regarding Conflict Minerals.

Compliance to "REACH"

We certify that all passive components supplied by Stackpole Electronics, Inc. are SVHC (Substances of Very High Concern) free and compliant with the requirements of EU Directive 1907/2006/EC, "The Registration, Evaluation, Authorization and Restriction of Chemicals", otherwise referred to as REACH. Contact us for complete list of REACH Substance Candidate List.

Environmental Policy

It is the policy of Stackpole Electronics, Inc. (SEI) to protect the environment in all localities in which we operate. We continually strive to improve our effect on the environment. We observe all applicable laws and regulations regarding the protection of our environment and all requests related to the environment to which we have agreed. We are committed to the prevention of all forms of pollution.

How to Order

C	V	H	1	4	0	K	1	4	B

Product Series	
Code	Description
CVH	Medium Voltage Leaded Varistor

Vrms
voltage

Tolerance	
Code	Tol
K	10%
L	15%
M	20%
S	Special

Disc Diameter
Size (mm)
07
10
14
20
23

Packaging	
Code	Description
B	Bulk
T	Tape and Reel
A	Ammo

Specials	
Code	Description
-XX	Special