

# High Voltage Leded (CH Style)



## Radial, Dual-in-Line & 'L' Lead SMT

330 pF to 2.7  $\mu$ F  
 1kV to 5kV  
 -55°C to +125°C  
 1B/COG and 2C1/X7R Dielectrics

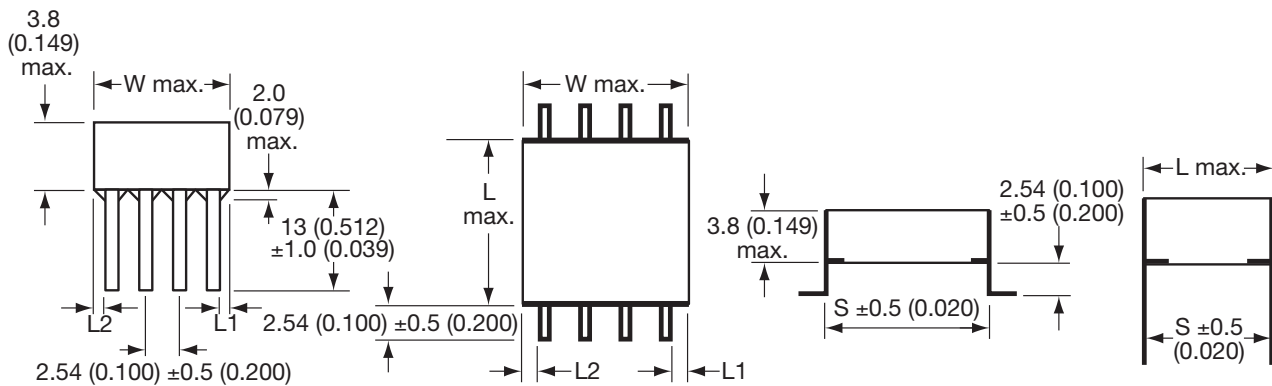
This range of radial, dual-in-line for both through hole and surface mount products is intended for use in high voltage power supplies and voltage multiplier circuits. The multilayer ceramic construction offers excellent volumetric efficiency compared with other high voltage dielectrics. They are suitable for both high reliability and industrial applications.

### ELECTRICAL SPECIFICATIONS

**Temperature Coefficient** CECC 30 000, (4.24.1)  
 1B/COG: A Temperature Coefficient -  $0 \pm 30$ ppm/°C  
 2C1/X7R: C Temperature Characteristic -  $\pm 15\%$  (0v cd)  
**Capacitance Test 25°C**  
 1B/COG: Measured at 1 VRMS max at 1KHz (1MHz <100 pF)  
 2C1/X7R: Measured at 1 VRMS max at 1KHz  
**Dissipation Factor 25°C**  
 1B/COG: 0.15% max at 1KHz, 1 VRMS (1MHz for <100 pF)  
 2C1/X7R: 2.5% max at 1KHz, 1 VRMS  
**Insulation Resistance**  
 1B/COG & 2C1/X7R: 100K megohms or 1000 megohms- $\mu$ F, whichever is less

**Dielectric Withstanding Voltage 25°C**  
 130% rated voltage for 5 seconds  
**Life Test** (1000 hrs) CECC 30000 (4.23)  
 1B/COG & 2C1/X7R: 120% rated voltage at +125°C.  
**Aging**  
 1B/COG: Zero  
 2C1/X7R: 2.5%/decade hour

### DUAL-IN-LINE



### DIMENSIONS

millimeters (inches)

Style	L (max)	W (max)	S (nom)	No. of Leads per side
CH41	9.2 (0.362)	8.7 (0.342)	8.2 (0.323)	3
CH51	10.7 (0.421)	10.7 (0.421)	10.2 (0.400)	4
CH61	14.9 (0.587)	13.6 (0.535)	14.0 (0.551)	5
CH76	21.6 (0.850)	16.6 (0.654)	20.3* (0.800)	6
CH91	24.0 (0.944)	40.6 (1.598)	20.3* (0.800)	14

Lead width 0.5 (0.020)  
 Lead thickness 0.254 (0.010)  
 L1 = L2  $\pm 0.5$  (0.020)

\*Tolerance  $\pm 0.8$

### HOW TO ORDER

CH	41	A	C	104	K	A	8	0	A	7
<b>Style Code</b>	<b>Size Code</b>	<b>Voltage Code</b>	<b>Dielectric Code</b>	<b>Capacitance Code</b>	<b>Capacitance Tolerance</b>	<b>Specification Code</b>	<b>Finish Code</b>	<b>Lead Dia. Code</b>	<b>Lead Space Code</b>	<b>Lead Style Code</b>
	A = 1kV G = 2kV H = 3kV J = 4kV K = 5kV	A = COG C = X7R	(2 significant digits + no. of zeros) eg. 105 = 1 $\mu$ F 106 = 10 $\mu$ F 107 = 100 $\mu$ F	COG: J = $\pm 5\%$ K = $\pm 10\%$ M = $\pm 20\%$ X7R: K = $\pm 10\%$ M = $\pm 20\%$ P = +100, -0%	A = Non customized 8 = Varnish	0 = Standard A = Standard	0 = Dual in line straight 7 = Dual in line 'L' style			



# High Voltage Leaded (CV Style)

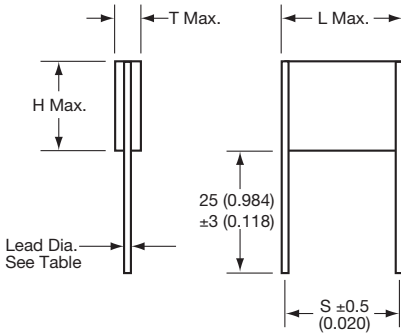


## Chip Assemblies

### VERTICALLY MOUNTED RADIAL PRODUCT

Part Number format (CVxxxxxxxxxxA2)

Typical Part Number CV51AC154MA80A2



### DIMENSIONS

millimeters (inches)

Style	L (max)	H (max)	T (max)	S (nom)	Lead Dia (nom)
CV41	10.6 (0.417)	8.70 (0.343)	3.80 (0.150)	8.20 (0.323)	0.70 (0.028)
CV51	11.9 (0.469)	10.7 (0.421)	3.80 (0.150)	10.2 (0.402)	0.90 (0.035)
CV61	16.5 (0.650)	13.6 (0.536)	3.80 (0.150)	15.2 (0.599)	0.90 (0.035)
CV76	22.7 (0.893)	16.6 (0.654)	3.80 (0.150)	21.2* (0.835)	0.90 (0.035)
CV91	22.7 (0.893)	40.6 (1.598)	3.80 (0.150)	21.2* (0.835)	1.20 (0.047)

\*Tolerance ± 0.8mm (0.031)

### HOW TO ORDER

**CV**

Style Code

**51**

Size Code

**A**

Voltage Code

A = 1kV  
G = 2kV  
H = 3kV  
J = 4kV  
K = 5kV

**C**

Dielectric Code

A = COG  
C = X7R

**154**

Capacitance Code

(2 significant digits + no. of zeros)  
eg. 105 = 1  $\mu$ F  
106 = 10  $\mu$ F  
107 = 100  $\mu$ F

**M**

Capacitance Tolerance

COG: J = ±5%  
K = ±10%  
M = ±20%  
X7R: K = ±10%  
M = ±20%  
P = +100, -0%

**A**

Specification Code

A = Non customized

**8**

Finish Code

8 = Varnish

**0**

Lead Dia. Code

0 = Standard

**A**

Lead Space Code

A = Standard

**2**

Lead Style Code

# High Voltage Leaded (CH/CV Style)



## Chip Assemblies

### 1B/C0G ULTRA STABLE CERAMIC

	CV41-CH41 Styles				CV51-CH51 Styles				CV61-CH61 Styles				CV76-CH76 Styles				CV91-CH91 Styles			
Cap pF																				
330				K																
390			J	K																
470			J	K																
560			J	K																
680			J					K												
820		H	J					K												
1000		H					J	K												
1200		H					J	K												
1500		H					J					K								
1800		G				H	J					K								
2200		G				H					J	K								
2700		G				H					J					K				
3300		G				G					H	J				K				
3900		G				G					H				J	K				
4700		G				G					H				J	K				
5600	A					G					H				J					K
6800	A					G				G					H	J				K
8200	A					G				G					H				J	K
10000	A					G				G					H				J	K
12000	A					A				G					H				J	K
15000	A					A				G				G					H	J
18000						A				G				G					H	J
22000						A				A				G					H	
27000						A				A				G					H	
33000						A				A				G					H	
39000										A				G					G	
47000										A				A					G	
56000										A				A					G	
68000										A				A					G	
82000														A					G	
100000														A					G	
120000																			A	
150000																			A	
180000																			A	
220000																			A	
270000																			A	
330000																			A	

NB Figures in cells refer to size within ordering information

# High Voltage Leaded (CH/CV Style)



## Chip Assemblies

### 2C1/X7R STABLE CERAMIC

Cap nF	CV41-CH41 Styles			CV51-CH51 Styles			CV61-CH61 Styles			CV76-CH76 Styles			CV91-CH91 Styles		
1.2															
1.3															
1.5				J	K										
2.2				J	K										
2.7				J	K										
3.3				J				K							
3.9				J				K							
4.7			H	J			J					K			
5.6			H				J					K			
6.8			H				J					K			
8.2		G	H				J					K			
10		G				H				J	K				
12		G				H				J			K		
15		G				H				J			K		
18	A				G	H			H			J	K		
22	A				G				H			J		K	
27	A				G				H			J		K	
33	A				G				H			J		K	
39	A			A				G	H			J		K	
47	A			A				G			H			J	
56	A			A				G			H			J	
68	A			A				G			H			J	
82	A			A				G			G		H	J	
100	A			A			A				G		H	J	
120	A			A			A				G		H	J	
150				A			A				G		H		
180				A			A			A			G	H	
220				A			A			A			G		
270				A			A			A			G		
330							A			A			G		
390							A			A			A		
470							A			A			A		
560							A			A			A		
680										A			A		
820										A			A		
1000										A			A		
1200													A		
1500													A		
1800													A		
2200													A		
2700													A		

NB Figures in cells refer to size within ordering information