Type CGH Inverter Grade Screw Terminal Aluminum Electrolytic

85 °C, Screw Terminal Capacitors

Type CGH screw terminal, aluminum electrolytic capacitors have excellent reliability and a high ripple current capability making them suitable for most AC drive and UPS applications.

Highlights

- High ripple current
- High reliability at 85 °C
- Screw Terminal

Specifications

Capacitance Range: 350 to 22,000 µF
Voltage Range: 250 to 500 WVdc
Capacitance Tolerance: –10% +50%
Operating Temperature: –40 to +85 °C
Ripple Current Multipliers: Ambient Temperature

+35 °C	+45 °C	+55 °C	+65 °C	+75 °C	+85 °C
2.45	2.25	2.00	1.70	1.40	1.00

Rated Voltage	Frequency / Ripple Multiplier				
	120 Hz	400 Hz	1000 Hz	2500 Hz	10 kHz
250 to 450	1.000	1.080	1.113	1.175	1.230

DC Leakage Current: I = .006 $\sqrt{CV}$ after 5 minutes
Not to exceed 6.0 mA
C = Capacitance in µF
V = Rated Voltage
I = Leakage current in mA

Click here to see: Hardware & Mounting Options

QA Stability Test: Apply WVdc for 1000 h @ 85 °C
- Capacitance change ≤10% from initial limits
- DC leakage current meets initial limits
- ESR ≤175% of initial measured value

Click here to see: Mechanical Details

Ratings

Cap (µF)	Catalog Part Number	Typical ESR 120 Hz (Ω)	Typical ESR 20 kHz (Ω)	Max Ripple 120 Hz (A) RMS	Max Ripple 20 kHz (A) RMS	Dia. (In.)	Length (In.)
250 WVdc (300 Vdc Surge)							
1,700	CGH172T250V2L	65.8	42.1	4.0	5.0	2.0	2.625
2,900	CGH292T250V3L	53.1	34.0	5.7	7.1	2.0	3.625
4,100	CGH412T250V4L	25.7	16.4	9.1	11.4	2.0	4.625
5,000	CGH502T250W3L	26.9	17.2	9.2	11.5	2.5	3.625
5,300	CGH532T250V5L	20.6	13.2	11.0	13.8	2.0	5.625
7,000	CGH702T250W4L	20.1	12.9	11.7	14.6	2.5	4.625

Cap (µF)	Catalog Part Number	Typical ESR 120 Hz (Ω)	Typical ESR 20 kHz (Ω)	Max Ripple 120 Hz (A) RMS	Max Ripple 20 kHz (A) RMS	Dia. (In.)	Length (In.)
250 WVdc (300 Vdc Surge)							
7,400	CGH742T250X3L	27.1	17.3	10.3	12.9	3.0	3.625
9,000	CGH902T250W5L	16.3	10.4	14.1	17.6	2.5	5.625
10,000	CGH103T250X4L	20.4	13.1	13.0	16.3	3.0	4.625
13,000	CGH133T250X5L	16.8	10.8	15.6	19.5	3.0	5.625
22,000	CGH223T250X8L	11.5	7.4	22.3	27.9	3.0	8.625

Type CGH Inverter Grade Screw Terminal Aluminum Electrolytic

Ratings

Cap (µF)	Catalog Part Number	Typical ESR 120 Hz (Ω)	Typical ESR 20 kHz (Ω)	Max Ripple 120 Hz (A) RMS	Max Ripple 20 kHz (A) RMS	Dia. (In.)	Length (In.)
350 WVdc (400 Vdc Surge)							
1,000	CGH102T350V2L	162.6	104.1	2.9	3.6	2.0	2.625
1,700	CGH172T350V3L	81.9	52.4	4.6	5.8	2.0	3.625
2,400	CGH242T350V4L	58.8	37.6	6.0	7.5	2.0	4.625
2,700	CGH272T350W3L	54.3	34.8	6.5	8.1	2.5	3.625
2,900	CGH292T350W3L	53.1	34.0	6.8	8.5	2.5	3.625
3,100	CGH312T350V5L	46.2	29.6	7.4	9.3	2.0	5.625
3,800	CGH382T350W4L	39.3	25.2	8.4	10.5	2.5	4.625
4,000	CGH402T350X3L	44.3	28.4	8.1	10.1	3.0	3.625
4,100	CGH412T350W4L	38.6	24.7	8.6	10.8	2.5	4.625
4,300	CGH432T350X3L	43.5	27.8	8.4	10.5	3.0	3.625
4,900	CGH492T350W5L	31.5	20.2	10.1	12.6	2.5	5.625
5,200	CGH522T350W5L	31.1	19.9	10.3	12.9	2.5	5.625
5,700	CGH572T350X4L	32.5	20.8	10.3	12.9	3.0	4.625
6,000	CGH602T350X4L	32.3	20.7	10.6	13.3	3.0	4.625
7,300	CGH732T350X5L	25.9	16.6	12.5	15.6	3.0	5.625
7,800	CGH782T350X5L	25.6	16.4	12.8	16.0	3.0	5.625
10,000	CGH103T350X8L	20.7	13.2	16.6	20.8	3.0	8.625
450 WVdc (525 Vdc Surge)							
620	CGH621T450V2L	159.6	102.1	2.9	3.6	2.0	2.625
1,000	CGH102T450V3L	83.4	53.4	4.8	6.0	2.0	3.625
1,400	CGH142T450V4L	60.3	38.6	5.9	7.4	2.0	4.625
1,700	CGH172T450W3L	55.3	35.4	6.4	8.0	2.5	3.625
1,800	CGH182T450V5L	47.6	30.5	7.2	9.0	2.0	5.625
2,400	CGH242T450W4L	40.1	25.7	8.3	10.4	2.5	4.625
2,500	CGH252T450X3L	44.9	28.7	8.0	10.0	3.0	3.625

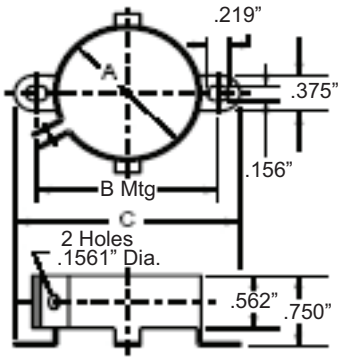
Cap (µF)	Catalog Part Number	Typical ESR 120 Hz (Ω)	Typical ESR 20 kHz (Ω)	Max Ripple 120 Hz (A) RMS	Max Ripple 20 kHz (A) RMS	Dia. (In.)	Length (In.)
450 WVdc (525 Vdc Surge)							
3,100	CGH312T450W5L	31.7	20.3	10.1	12.6	2.5	5.625
3,600	CGH362T450X4L	32.6	20.9	10.3	12.9	3	4.625
4,600	CGH462T450X5L	26.2	16.8	12.4	15.5	3	5.625
7,700	CGH772T450X8L	17.3	11.1	18.2	22.8	3	8.625
500 WVdc (550 Vdc Surge)							
350	CGH351T500V2 C	692.0	612.0	1.3	1.5	2.0	2.125
520	CGH521T500V2L	470.0	416.0	1.7	1.9	2.0	2.625
710	CGH711T500V3 C	345.0	305.0	2.1	2.4	2.0	3.125
900	CGH901T500V3L	272.0	241.0	2.5	2.8	2.0	3.625
1100	CGH112T500V4 C	225.0	199.0	3.1	3.3	2.0	4.125
1200	CGH122T500W3 C	218.0	196.0	3.1	3.4	2.5	3.125
1300	CGH132T500V4L	192.0	170.0	3.3	3.7	2.0	4.625
1500	CGH152T500V5 C	168.0	148.0	3.7	4.1	2.0	5.125
1500	CGH152T500W3L	172.0	153.0	3.6	4.1	2.5	3.625
1700	CGH172T500V5L	149.0	132.0	4.0	4.5	2.0	5.625
1800	CGH182T500W4 C	142.0	126.0	4.2	4.7	2.5	4.125
2100	CGH212T500W4L	121.0	108.0	4.8	5.3	2.5	4.625
2200	CGH222T500X3L	124.0	111.0	4.8	5.4	3.0	3.625
2400	CGH242T500W5 C	106.0	99.1	5.3	6.0	2.5	5.125
2700	CGH272T500W5L	93.9	83.5	5.9	6.6	2.5	5.625
2700	CGH272T500X4 C	103.0	91.8	5.6	6.3	3.0	4.125
3100	CGH312T500X4L	87.4	78.4	6.3	7.0	3.0	4.625
3600	CGH362T500X5 C	76.3	68.4	7.0	7.8	3.0	5.125
4100	CGH412T500X5L	67.8	60.8	7.7	8.6	3.0	5.625
6900	CGH692T500X8L	41.0	36.9	11.9	13.2	3.0	8.625

Type VR Vertical Mounting Clamp

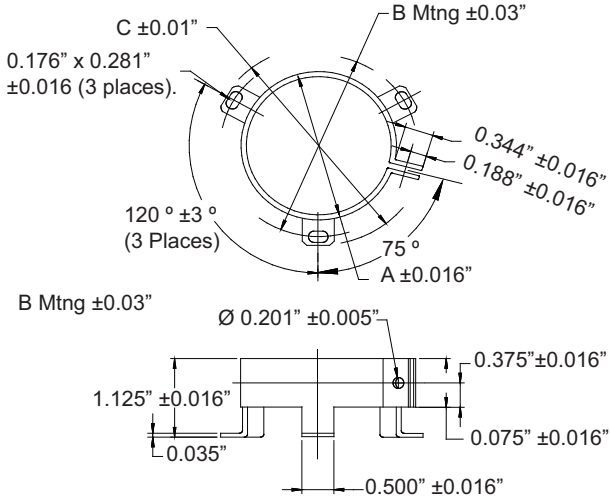
Diameter of Part to be Mounted	Catalog Part Number: Without Screw & Nut	Catalog Part Number: Unassembled Screw & Nut Included	Catalog Part Number: Assembled with Screw & Nut	Dimensions: A	Dimensions: B	Dimensions: C
1" to 1-1/16	VR1B	VR1	VR1A	1"	1-7/16"	1-7/8*"
1-3/8" to 1-7/16	VR3B	VR3	VR3A	1-3/8"	1-25/32"	2-7/32"
1-1/2" to 1-9/16	VR4B	VR4	VR4A	1-1/2"	1-15/16"	2-11/32"
1-3/4" to 1-13/16	VR6B	VR6	VR6A	1-3/4"	2-1/4"	2-9/16"
2" to 2-1/16	VR8B	VR8	VR8A	2"	2-1/2"	2-13/16"
2-1/2" to 2-9/16	VR10B	VR10	VR10A	2-1/2"	3"	3-5/16"
3" to 3-1/8	VR12B	VR12	VR12A	3"	3-7/16"	3-13/16"
Screw	VRSCREW	—	—	9/16" long 6-32 thread NC-2A		
Nut	VRNUT	—	—	Standard hex nut to fit screws		

CDE VR mounting clamps may be used to mount any cylindrical capacitor with a 1” to 3” diameter that is to be mounted in a vertical position. Material is 1010 CRS, commercial grade #4 temper ASI scale. Parts are finished with .0001 (nominal) zinc chromate plating. Use for mounting CG types, PSU, SF and MPF types. Material thickness is .035”

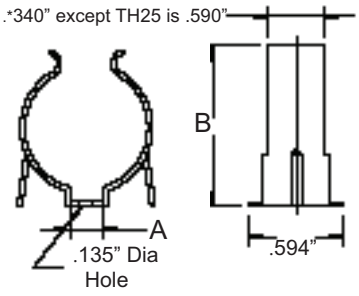
VR1, 3 & 4



VR6, 8,10 & 12



Type TH Horizontal Mounting Clip



Catalog Part Number	Dimensions in Inches: Nominal Dia. of Part to be Mounted	A	B
TH13	.375	.250	.47
TH17	.625	.312	.72
TH21	.875	.312	1.00
TH23	1.000	.312	1.06
TH25	1.375	.312	1.50

These clips, though designed for capacitors, have varied applications to retain many cylindrical components. They are used extensively in the electrical and electronic industries to hold spindles, condensers, capacitors, tubes, rods and conduit. Clips have phosphate and oil finish.

Material thickness TH13 thru TH17 is .016”. TH21 thru TH25 is .020”

ACR15KT Motor Start Resistor Kit

15K Ohm 2 watt bleeder resistors for AC motor start applications. Saves relay switch contacts and capacitor, particularly in capacitor start applications. 1/4” quick connect terminals eliminate need for soldering.

ACR15K:
Pack of 10, 15K Ohm 2 watt bleeder resistor without quick connect terminals.

ACR220KT Motor Run Resistor Kit

220K Ohm 1 watt bleeder resistors for AC motor run applications. Saves relay switch contacts and capacitor, particularly in capacitor run applications. 1/4” quick connect terminals eliminate need for soldering.

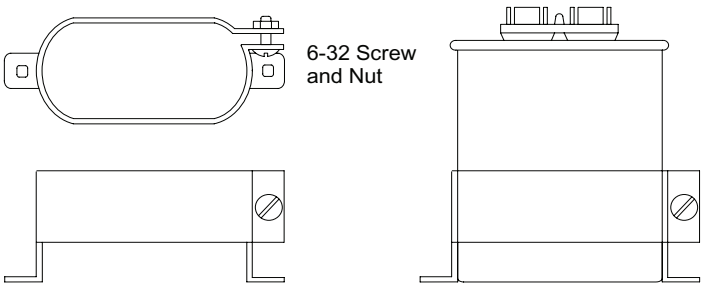
ACR220K:
Pack of 10, 220K Ohm 1 watt bleeder resistor without quick connect terminals.

Capacitor Hardware

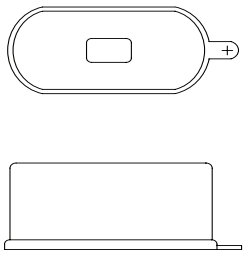
Oval Capacitor Hardware

Mounting Brackets #32107

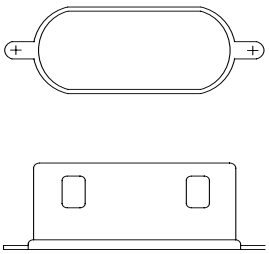
Case Code	Bracket
A	32107-1
C	32107-2
D	32107-3



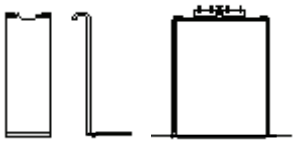
Insulating Terminal Boots
44603



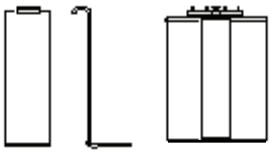
UL Approved Material
32108-2



End Mount Footed Bracket (2 required) #30434



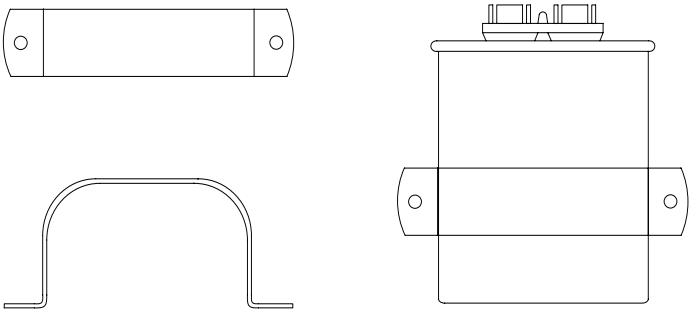
Side Mount Footed Bracket (2 required) #31762



H (Inches)	End Mount	Side Mount
2.13	30434-33	31762-45
2.38	30434-37	31762-46
2.63	30434-41	31762-47
2.88	30434-45	31762-48
3.13	30434-49	31762-49
3.50	30434-55	31762-50
3.75	30434-59	31762-83
3.88	30434-61	31762-51
4.25	30434-67	31762-52
4.75	30434-75	31762-54
5.13	30434-81	31762-132
5.25	30434-83	31762-55
5.75	30434-91	31762-56
6.25	30434-99	31762-59
6.75	30434-107	31762-60
7.25	30434-115	31762-62
8.00	30434-127	31762-63
9.00	30434-143	31762-78

Wrap Around Bracket

Case Code	Bracket
A	30393-5
C	30393-9
D	OB3



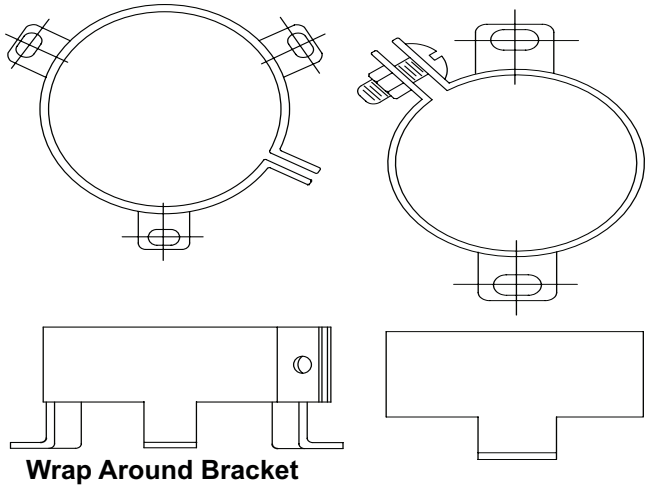
Round Capacitor Hardware

3 Footed Round Mounting Bracket

Case Code	Bracket
P	VR6B
S	VR8B
T	VR10B

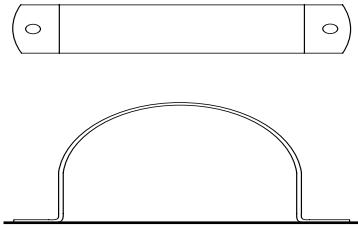
2 Footed Round Mounting Bracket

Case Code	Bracket
P	32107-6
S	32107-7
T	32107-8



Wrap Around Bracket

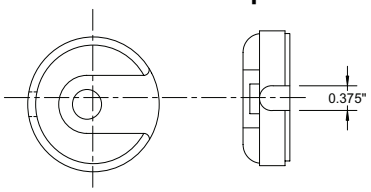
Case Code	Bracket
P	RB175
S	RB200
T	RB250



Motor Start Mounting Hardware

Bracket

End Cap



Case Code	Case Dimensions (Inches)		Down Wire Cap	Up Wire Cap	Optional Mounting Bracket
	D	L			
1	1.438	2.750	PL3	PLA3	HB2
2	1.438	3.375	PL3	PLA3	HB4
3	1.438	4.375	PL3	PLA3	HB8
4	1.813	3.375	PL6	PLA6	HB4
5	1.813	4.375	PL6	PLA6	HB8
6	2.063	3.375	PL8	PLA8	HB4
7	2.063	4.375	PL8	PLA8	HB8
8	2.563	4.375	PL10	PLA10	HB8

Order both endcap and bracket for mounting

Screw-Terminal, Computer-Grade Capacitor, Mounting Hardware

Figure 1

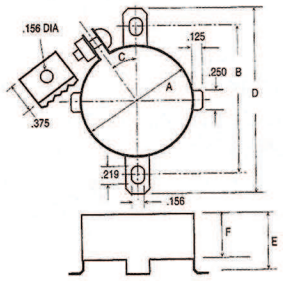


Figure 2

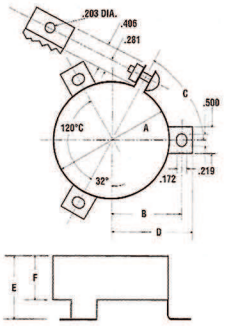


Figure 3

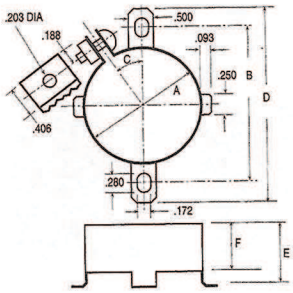
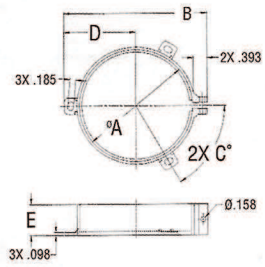
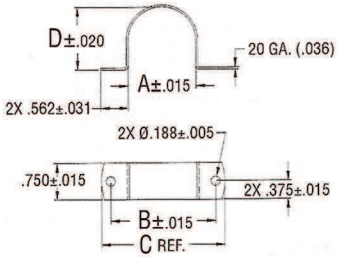


Figure 4



Clamp Dimensions



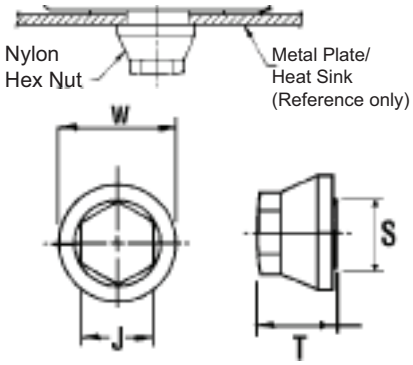
Clamp Number	Dimensions in Inches			
	A	B	C	D
125562-01	1.375	2.125	2.500	1.281
125562-05	1.750	2.500	2.875	1.656
125562-02	2.000	2.750	3.125	1.906
125562-04	2.500	3.250	3.625	2.406
125562-03	3.000	3.750	4.125	2.906
125562-06	3.500	4.250	4.625	3.481

Bracket Dimensions

Figure	Bracket Number	Dimensions in Inches						Dimensions in Millimeters					
		A	B	C	D	E	F	A	B	C	D	E	F
1	125565-06*	1.375	1.813	30 °	2.313	.750	.563	34.93	46.04	30º	58.74	19.05	14.30
1	125565-15*	1.750	2.188	30 °	2.625	.750	.560	44.45	55.56	30º	66.68	19.05	14.22
2	125565-09*	2.000	1.250	75 °	1.438	1.125	.750	50.80	31.75	75º	36.51	28.58	19.05
3	125565-05	2.000	2.563	30 °	2.938	1.125	.750	50.80	65.09	30º	76.41	28.58	19.05
2	125565-14*	2.500	1.500	75 °	1.688	1.125	.750	63.50	38.10	75º	42.86	28.58	19.05
3	125565-10	2.500	3.000	30 °	3.438	1.125	.750	63.50	76.20	30º	87.31	28.58	19.05
2	125565-11*	3.000	1.750	75 °	1.938	1.125	.750	76.20	44.45	75º	49.21	28.58	19.05
3	125565-01	3.000	3.500	30 °	3.938	1.125	.750	76.20	88.90	30º	100.01	28.58	19.05
4	125309-01	3.500	4.488	60 °	2.224	.984	–	90.00	114.00	60º	4.70	25.00	–

Note: All mounting brackets and clamps except Figure 4 are zinc plated. Figure 4 is a black nylon. When mounting capacitors there is no need to wrap capacitors with protective wrapping before installing mounting clamp.
*Stock bracket

Nylon Nuts for Insulated Stud Mounting



Nylon Nut Part Number	For Stud Diameter (mm)	Standoff Diameter S (mm)	Nut Diameter W (mm)	Nut Elevation T (mm)	Hex Head J (mm)	Mounting		
						Min. Hole Diameter (mm)	Max. Chassis Thickness (mm)	Max. Tightening Torque in. lbs.
M8S17W25	M8	17	25	14	17	17.5	5	25
M12S22W30	M12	22	30	16	19	22.5	5	75
M12S30W38	M12	30	38	16.5	19	30.5	5	75

Part Number Information

*

CGS	184	U	010	X3L	(3	P	H)
Type	Capacitance (µF)	Capacitance Tolerance (%)	Voltage Rating (Vdc)	Case Code	Insulating Sleeve	Polarity	Termianal
CGS	**750** = 75	**U** = –10 +75% ≤ 150 Vdc	**005** = 5	See		**P** = Polar	**H** = High Post
CG	**751** = 750	**T** = –10 +50% > 150 Vdc	**7R5** = 7.5	Chart		**N** = Non Polar	**L** = Low Post
CGR	**122** = 1200	**M** = ±20%	**010** = 10				**V** = Printed Circuit Mt.
CGO	**123** = 12,000		**100** = 100				**D** = Low Post, Low Resistance, Screw Mount (1/4 - 28 Thread)
CGH	**154** = 150,000						**F** = High Post Metric Thread
HES							**G** = Low post Metric Thread
							N = High Post, Low Resistance, Screw Mount (1/4 - 28 Thread)

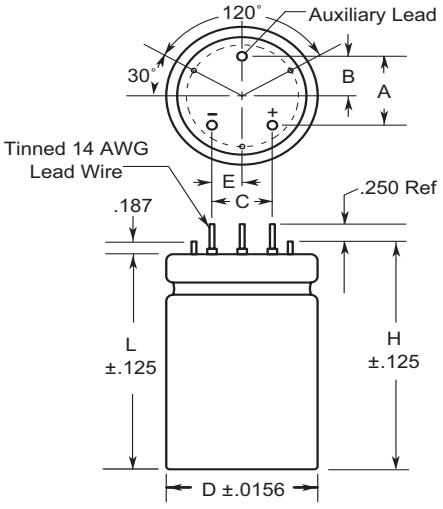
0 = None
1 = Polyester
3 = Blue PVC - .008" thick (Standard)
6 = Black PVC - .008" thick
7 = Double Blue PVC - .016" thick

Note: * Most parts shown in the catalog have PVC sleeving and are polar with high post terminals
The 3PH is left off the part number, but is assumed
Type CGO has a 'L' at the end of the part number which stands for 'low post' and the case code has been omitted. Check standard parts list for size.

Case Codes, Dimensions and Outline Drawing

PC Mounting Board Dim - Uninsulated Can

Case Code	Inches						
	D	L	H	A	B	C	E
R1N	1.375	1.75	1.937	0.6	0.375	0.5	0.25
R2C	1.375	2.125	2.312	0.6	0.375	0.5	0.25
R2L	1.375	2.625	2.812	0.6	0.375	0.5	0.25
R3C	1.375	3.125	3.312	0.6	0.375	0.5	0.25
R3L	1.375	3.625	3.812	0.6	0.375	0.5	0.25
R4C	1.375	4.125	4.312	0.6	0.375	0.5	0.25
R4L	1.375	4.625	4.812	0.6	0.375	0.5	0.25
R5C	1.375	5.125	5.312	0.6	0.375	0.5	0.25
R5L	1.375	5.625	5.812	0.6	0.375	0.5	0.25
V2C	2.000	2.125	2.312	1.0	0.575	0.8	0.4
V2L	2.000	2.625	2.812	1.0	0.575	0.8	0.4
V3C	2.000	3.125	3.312	1.0	0.575	0.8	0.4
V3L	2.000	3.625	3.812	1.0	0.575	0.8	0.4
V4C	2.000	4.125	4.312	1.0	0.575	0.8	0.4
V4L	2.000	4.625	4.812	1.0	0.575	0.8	0.4
V5C	2.000	5.125	5.312	1.0	0.575	0.8	0.4
V5L	2.000	5.625	5.812	1.0	0.575	0.8	0.4



Printed Circuit Board (V)

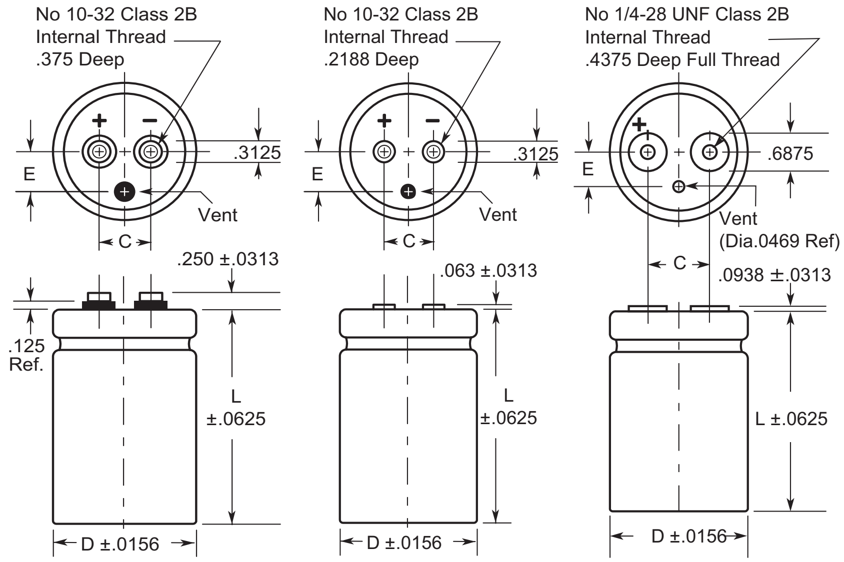
Type CGS, CG, CGR, CGO, CGH, HES Part Number Information

Case Codes, Dimensions and Outline Drawings

Case Code Chart - Uninsulated Can

Case	Inches		mm		Inches	mm	Mounting
Code	D	L	D	L	C	C	Bracket
R2C	1.375	2.125	35	54.0	0.5	12.7	VR3
R2L	1.375	2.625	35	67.0	0.5	12.7	VR3
R3C	1.375	3.125	35	79.4	0.5	12.7	VR3
R3L	1.375	3.625	35	92.0	0.5	12.7	VR3
R4C	1.375	4.125	35	105.0	0.5	12.7	VR3
R4L	1.375	4.625	35	117.5	0.5	12.7	VR3
R5C	1.375	5.125	35	130.0	0.5	12.7	VR3
R5L	1.375	5.625	35	143.0	0.5	12.7	VR3
U2C	1.750	2.125	44.5	54.0	0.75	19.0	VR6
U2L	1.750	2.625	44.5	67.0	0.75	19.0	VR6
U3C	1.750	3.125	44.5	79.4	0.75	19.0	VR6
U3L	1.750	3.625	44.5	92.0	0.75	19.0	VR6
U4C	1.750	4.125	44.5	105.0	0.75	19.0	VR6
U4L	1.750	4.625	44.5	117.5	0.75	19.0	VR6
U5C	1.750	5.125	44.5	130.0	0.75	19.0	VR6
U5L	1.750	5.625	44.5	143.0	0.75	19.0	VR6
V2C	2.000	2.125	50.8	54.0	0.875	22.2	VR8
V2L	2.000	2.625	50.8	67.0	0.875	22.2	VR8
V3C	2.000	3.125	50.8	79.4	0.875	22.2	VR8
V3L	2.000	3.625	50.8	92.0	0.875	22.2	VR8
V4C	2.000	4.125	50.8	105.0	0.875	22.2	VR8
V4L	2.000	4.625	50.8	117.5	0.875	22.2	VR8
V5C	2.000	5.125	50.8	130.0	0.875	22.2	VR8
V5L	2.000	5.625	50.8	143.0	0.875	22.2	VR8
W3C	2.500	3.125	63.5	79.4	1.125	28.6	VR10
W3L	2.500	3.625	63.5	92.0	1.125	28.6	VR10
W4C	2.500	4.125	63.5	105.0	1.125	28.6	VR10
W4L	2.500	4.625	63.5	117.5	1.125	28.6	VR10
W5C	2.500	5.125	63.5	130.0	1.125	28.6	VR10
W5L	2.500	5.625	63.5	143.0	1.125	28.6	VR10
X3L	3.000	3.625	76.2	92.0	1.25	31.7	VR12
X4C	3.000	4.125	76.2	105.0	1.25	31.7	VR12
X4L	3.000	4.625	76.2	117.5	1.25	31.7	VR12
X5C	3.000	5.125	76.2	130.0	1.25	31.7	VR12
X5L	3.000	5.625	76.2	143.0	1.25	31.7	VR12
X5R	3.000	5.875	76.2	149.0	1.25	31.7	VR12
X6L	3.000	6.625	76.2	168.0	1.25	31.7	VR12
X7L	3.000	7.625	76.2	194.0	1.25	31.7	VR12
X8L	3.000	8.625	76.2	219.0	1.25	31.7	VR12

High Post (H) (Standard) **Low Post (L)** **Low Resistance (D)**



Can Dia	E
1.375	0.390
1.750	0.453
2.000	0.500
2.500	0.625
3.000	0.750
3.500	0.750

Can Dia	E
1.375	0.390
1.750	0.453
2.000	0.500
2.500	0.625
3.000	0.750
3.500	0.750

Can Dia	E
1.375	0.390
1.750	0.453
2.000	0.500
2.500	0.625
3.000	0.750
3.500	0.750

Add .015 inches to diameter and .045 inches to length for PVC insulating sleeve