

Aluminum Capacitors + 105 °C, Tubular, Axial Lead



Fig.1 Component outlines

FEATURES

- Temperature range - 55 °C to + 105 °C
- Long life
- Low ESR
- Available on special order - Call Vishay representative for part numbers and specifications



QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Nominal case size Ø D x L in mm	0.625" x 1.125" [15.875 x 28.575] to 1.0" x 3.625" [25.4 x 92.075]
Operating temperature	- 55 °C to + 105 °C
Rated Capacitance range, C _R	12 µF to 33 000 µF
Tolerance on C _R	- 10 %, + 50 %
Rated voltage range, U _R	6.3 WVDC to 300 WVDC
Termination	Axial leads
Life validation test at 105 °C	2000 hours: Δ CAP ≤ 15 % from initial measurement. Δ ESR ≤ 1.25 x initial specified limit. Δ DCL ≤ initial specified limit.
Shelf life at 105 °C	500 hours: Δ CAP ≤ 10 % from initial measurement. Δ ESR ≤ 1.15 x initial specified limit. Δ DCL ≤ 2.0 x initial specified limit.
DC leakage current	$I = K\sqrt{CV}$ K = 0.5 at + 25 °C; = 3.0 at + 105 °C I in µA, C in µF, V in Volts

RIPPLE CURRENT MULTIPLIERS			
TEMPERATURE			
Ambient Temperature		Multipliers	
+ 105 °C		0.4	
+ 65 °C		1.4	
+ 45 °C		1.7	
+ 25 °C		2.0	
FREQUENCY (Hz)			
WVDC	50 - 60	300 - 400	1000 AND UP
0 - 60	0.85	1.10	1.15
61 - 250	0.83	1.15	1.20

LOW TEMPERATURE PERFORMANCE	
CAPACITANCE RATIO C - 55 °C / C + 25 °C MINIMUM at 120 Hz	
Rated Voltage WVDC	Capacitance Remaining
0 - 25	75
26 - 100	80
101 - 250	85
ESR RATIO ESR - 55 °C / ESR + 25 °C MAXIMUM at 120 Hz	
Rated Voltage WVDC	Multiplier
0 - 9	10
10 - 40	12
41 - 250	18

DIMENSIONS in inches [millimeters]					
CASE CODE	STYLE 1 AND 2 INSULATING SLEEVE		STYLE 5 AND 7 INSULATING SLEEVE, COATED END SEAL		TYPICAL WEIGHT
	D	L	D	L	
FE	0.635 ± 0.020 [16.1 ± 0.51]	1.141 ± 0.062 [29.0 ± 1.57]	0.635 ± 0.020 [16.1 ± 0.51]	1.187 ± 0.062 [30.2 ± 1.57]	0.32 oz. (9.0 g)
FJ	0.635 ± 0.020 [16.1 ± 0.51]	1.641 ± 0.062 [41.7 ± 1.57]	0.635 ± 0.020 [16.1 ± 0.51]	1.687 ± 0.062 [42.9 ± 1.57]	0.39 oz. (11.0 g)
FL	0.635 ± 0.020 [16.1 ± 0.51]	2.141 ± 0.062 [54.4 ± 1.57]	0.635 ± 0.020 [16.1 ± 0.51]	2.187 ± 0.062 [55.6 ± 1.57]	0.53 oz. (15.0 g)
FP	0.635 ± 0.020 [16.1 ± 0.51]	2.641 ± 0.062 [67.1 ± 1.57]	0.635 ± 0.020 [16.1 ± 0.51]	2.687 ± 0.062 [68.3 ± 1.57]	0.63 oz. (18.0 g)
FS	0.635 ± 0.020 [16.1 ± 0.51]	3.141 ± 0.062 [79.8 ± 1.57]	0.635 ± 0.020 [16.1 ± 0.51]	3.187 ± 0.062 [81.0 ± 1.57]	0.88 oz. (25.0 g)
FT	0.635 ± 0.020 [16.1 ± 0.51]	3.641 ± 0.062 [92.5 ± 1.57]	0.635 ± 0.020 [16.1 ± 0.51]	3.687 ± 0.062 [93.7 ± 1.57]	0.98 oz. (28.0 g)
GE	0.760 ± 0.020 [19.3 ± 0.51]	1.141 ± 0.062 [29.0 ± 1.57]	0.760 ± 0.020 [19.3 ± 0.51]	1.187 ± 0.062 [30.2 ± 1.57]	0.46 oz. (13.0 g)
GJ	0.760 ± 0.020 [19.3 ± 0.51]	1.641 ± 0.062 [41.7 ± 1.57]	0.760 ± 0.020 [19.3 ± 0.51]	1.687 ± 0.062 [42.9 ± 1.57]	0.67 oz. (19.0 g)

601D

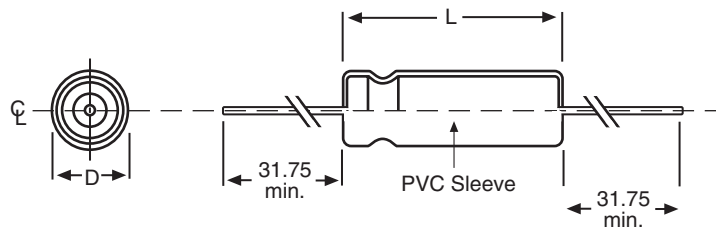
Vishay Sprague

Aluminum Capacitors
+ 105 °C, Tubular, Axial Lead



DIMENSIONS in inches [millimeters]					
CASE CODE	STYLE 1 AND 2 INSULATING SLEEVE		STYLE 5 AND 7 INSULATING SLEEVE, COATED END SEAL		TYPICAL WEIGHT
	D	L	D	L	
GL	0.760 ± 0.020 [19.3 ± 0.51]	2.141 ± 0.062 [54.4 ± 1.57]	0.760 ± 0.020 [19.3 ± 0.51]	2.187 ± 0.062 [55.6 ± 1.57]	0.74 oz. (21.0 g)
GP	0.760 ± 0.020 [19.3 ± 0.51]	2.641 ± 0.062 [67.1 ± 1.57]	0.760 ± 0.020 [19.3 ± 0.51]	2.687 ± 0.062 [68.3 ± 1.57]	0.88 oz. (25.0 g)
GS	0.760 ± 0.020 [19.3 ± 0.51]	3.141 ± 0.062 [79.8 ± 1.57]	0.760 ± 0.020 [19.3 ± 0.51]	3.187 ± 0.062 [81.0 ± 1.57]	1.16 oz. (33.0 g)
GT	0.760 ± 0.020 [19.3 ± 0.51]	3.641 ± 0.062 [92.5 ± 1.57]	0.760 ± 0.020 [19.3 ± 0.51]	3.687 ± 0.062 [93.7 ± 1.57]	1.33 oz. (38.0 g)
HE	0.885 ± 0.020 [22.5 ± 0.51]	1.141 ± 0.062 [29.0 ± 0.51]	0.885 ± 0.020 [22.5 ± 0.51]	1.187 ± 0.062 [30.2 ± 1.57]	0.63 oz. (18.0 g)
HJ	0.885 ± 0.020 [22.5 ± 0.51]	1.641 ± 0.062 [41.7 ± 1.57]	0.885 ± 0.020 [22.5 ± 0.51]	1.687 ± 0.062 [42.9 ± 1.57]	0.95 oz. (27.0 g)
HL	0.885 ± 0.020 [22.5 ± 0.51]	2.141 ± 0.062 [54.4 ± 1.57]	0.885 ± 0.020 [22.5 ± 0.51]	2.187 ± 0.062 [55.6 ± 1.57]	1.02 oz. (29.0 g)
HP	0.885 ± 0.020 [22.5 ± 0.51]	2.641 ± 0.062 [67.1 ± 1.57]	0.885 ± 0.020 [22.5 ± 0.51]	2.687 ± 0.062 [68.3 ± 1.57]	1.37 oz. (39.0 g)
HS	0.885 ± 0.020 [22.5 ± 0.51]	3.141 ± 0.062 [79.8 ± 1.57]	0.885 ± 0.020 [22.5 ± 0.51]	3.187 ± 0.062 [81.0 ± 1.57]	1.72 oz. (49.0 g)
HT	0.885 ± 0.020 [22.5 ± 0.51]	3.641 ± 0.062 [92.5 ± 1.57]	0.885 ± 0.020 [22.5 ± 0.51]	3.687 ± 0.062 [93.7 ± 1.57]	2.07 oz. (59.0 g)
JE	1.010 ± 0.020 [25.7 ± 0.51]	1.141 ± 0.062 [29.0 ± 1.57]	1.010 ± 0.020 [25.7 ± 0.51]	1.187 ± 0.062 [30.2 ± 1.57]	0.81 oz. (23.0 g)
JJ	1.010 ± 0.020 [25.7 ± 0.51]	1.641 ± 0.062 [41.7 ± 1.57]	1.010 ± 0.020 [25.7 ± 0.51]	1.687 ± 0.062 [42.9 ± 1.57]	1.02 oz. (29.0 g)
JL	1.010 ± 0.020 [25.7 ± 0.51]	2.141 ± 0.062 [54.4 ± 1.57]	1.010 ± 0.020 [25.7 ± 0.51]	2.187 ± 0.062 [55.6 ± 1.57]	1.54 oz. (44.0 g)
JP	1.010 ± 0.020 [25.7 ± 0.51]	2.641 ± 0.062 [67.1 ± 1.57]	1.010 ± 0.020 [25.7 ± 0.51]	2.687 ± 0.062 [68.3 ± 1.57]	1.86 oz. (53.0 g)
JS	1.010 ± 0.020 [25.7 ± 0.51]	3.141 ± 0.062 [79.8 ± 1.57]	1.010 ± 0.020 [25.7 ± 0.51]	3.187 ± 0.062 [81.0 ± 1.57]	2.21 oz. (63.0 g)
JT	1.010 ± 0.020 [25.7 ± 0.51]	3.641 ± 0.062 [92.5 ± 1.57]	1.010 ± 0.020 [25.7 ± 0.51]	3.687 ± 0.062 [93.7 ± 1.57]	2.52 oz. (72.0 g)

DIMENSIONS AND AVAILABLE FORMS



ORDERING EXAMPLE

Electrolytic capacitor 601D series: 601D 158 F 050 GL 1

DESCRIPTION	
CODE	EXPLANATION
601D	product type
158	capacitance value (1500 μ F)
F	tolerance (F = - 10 %/+ 50 %)
050	voltage rating at 105 °C (050 = 50 V)
GL	can size (see Dimensions table)
1	sleeve and sealing (1 = P.V.C. sleeve)



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