

Aluminum Capacitors + 85 °C, Snap-In, General Purpose

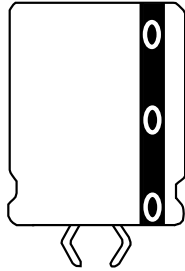


Fig.1 Component Outlines

FEATURES

- Maximum CV
- General purpose design
- Wide voltage range
- Molded cover available in 2 or 3 terminal design with standoffs
- Replaces type 82D



QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Nominal case size Ø D x L in inches (mm)	0.87 x 1.00 (22.0 x 25.0) to 1.57 x 3.18 (40.0 x 80.0)
Operating temperature	- 40 °C to + 85 °C
Rated capacitance range, C _R	33 µF to 270 000 µF
Tolerance on C _R	± 20 %
Rated voltage range, U _R	6.3 WVDC to 500 WVDC
Termination	Snap-in
Life validation test at 85 °C	2000 h: ΔCAP ≤ 15 % from initial measurement. ΔESR ≤ 1.5 x initial specified limit. ΔDCL ≤ initial specified limit
Shelf life at 85 °C	500 h: ΔCAP ≤ 15 % from initial measurement. ΔESR ≤ 1.3 x initial specified limit. ΔDCL ≤ 2 x initial specified limit
DC leakage current 5 min charge time	$I = K \sqrt{CV}$ K = 4.0 at + 25 °C I in µA, C in µF, V in Volts

RIPPLE CURRENT MULTIPLIERS			
TEMPERATURE			
AMBIENT TEMPERATURE		MULTIPLIERS	
+ 55 °C		2.0	
+ 65 °C		1.7	
+ 75 °C		1.4	
+ 85 °C		1.0	
FREQUENCY (Hz)			
WVDC	50 TO 60	300 TO 1000	1000 AND UP
16 to 49	0.85	1.10	1.15
50 to 199	0.83	1.15	1.20
200 to 400	0.80	1.30	1.40

DIMENSIONS in inches (millimeters)							
CASE CODE	DIAMETER	LENGTH	STYLE 2 TYPICAL WEIGHT (g)	CASE CODE	DIAMETER	LENGTH	STYLE 2 TYPICAL WEIGHT (g)
	D + 0.04 - 0 (+ 1.0 - 0)	L ± 0.08 (2.0)			D + 0.04 - 0 (+ 1.0 - 0)	L ± 0.08 (2.0)	
HA	0.87 (22.0)	1.00 (25.0)	16.0	MB	1.38 (35.0)	1.18 (30.0)	48.0
HB	0.87 (22.0)	1.18 (30.0)	19.0	MC	1.38 (35.0)	1.38 (35.0)	54.0
HD	0.87 (22.0)	1.57 (40.0)	24.0	MD	1.38 (35.0)	1.57 (40.0)	61.0
JA	1.00 (25.0)	1.00 (25.0)	20.0	ME	1.38 (35.0)	2.00 (50.0)	74.0
JB	1.00 (25.0)	1.18 (30.0)	24.0	MF	1.38 (35.0)	2.50 (63.0)	91.0
JC	1.00 (25.0)	1.38 (35.0)	27.0	MG	1.38 (35.0)	3.18 (80.0)	113.0
JD	1.00 (25.0)	1.57 (40.0)	31.0	NA	1.58 (40.0)	1.00 (25.0)	48.0
JE	1.00 (25.0)	2.00 (50.0)	38.0	NB	1.58 (40.0)	1.18 (30.0)	58.0
KA	1.18 (30.0)	1.00 (25.0)	30.0	NC	1.58 (40.0)	1.38 (35.0)	66.0
KB	1.18 (30.0)	1.18 (30.0)	35.0	ND	1.58 (40.0)	1.57 (40.0)	81.0
KC	1.18 (30.0)	1.38 (35.0)	39.0	NE	1.58 (40.0)	2.00 (50.0)	103.0
KD	1.18 (30.0)	1.57 (40.0)	44.0	NF	1.58 (40.0)	2.50 (63.0)	128.0
KE	1.18 (30.0)	2.00 (50.0)	53.0	NG	1.58 (40.0)	3.18 (80.0)	183.0

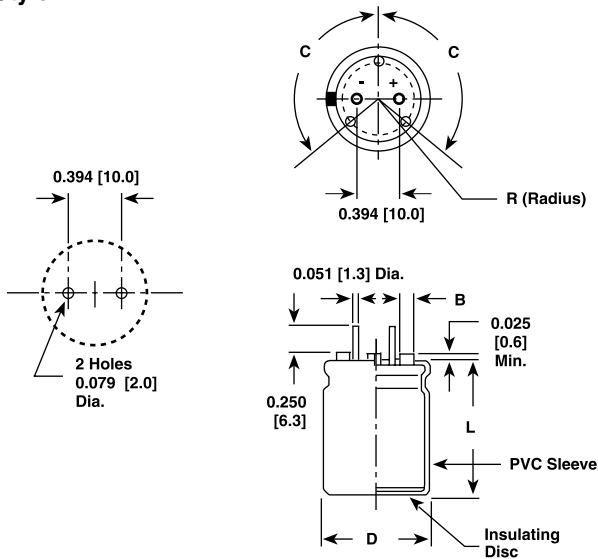
DIMENSIONS in inches (millimeters)					
CIRCUIT BOARD MOUNT TERMINAL DIMENSIONS ⁽¹⁾					
DIAMETER		STYLE A			STYLE B
D	CASE CODE	B	R	C	R
1.00 (25.0)	J	0.093 (2.4)	0.301 (7.6)	140°	N/A
1.18 (30.0)	K	0.125 (3.2)	0.363 (9.2)	120°	0.391 (9.9)
1.38 (35.0)	M	0.125 (3.2)	0.458 (11.6)	120°	0.458 (11.6)

Note

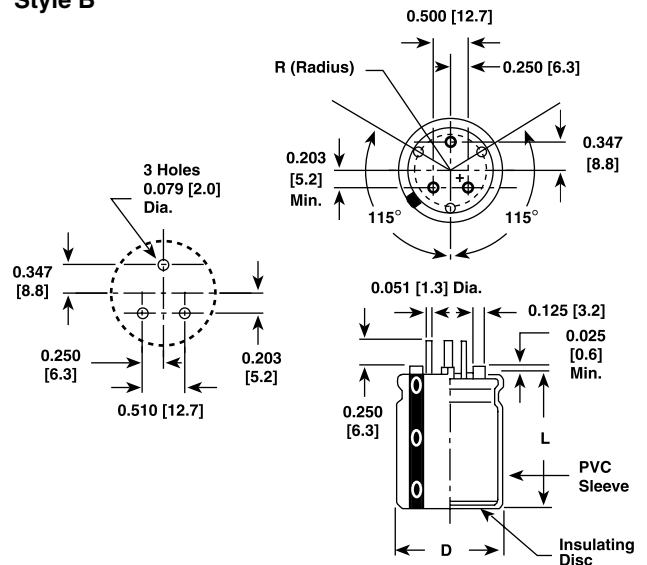
⁽¹⁾ Style A and B not available in 0.87" (22.0 mm) diameter units

DIMENSIONS AND AVAILABLE FORMS

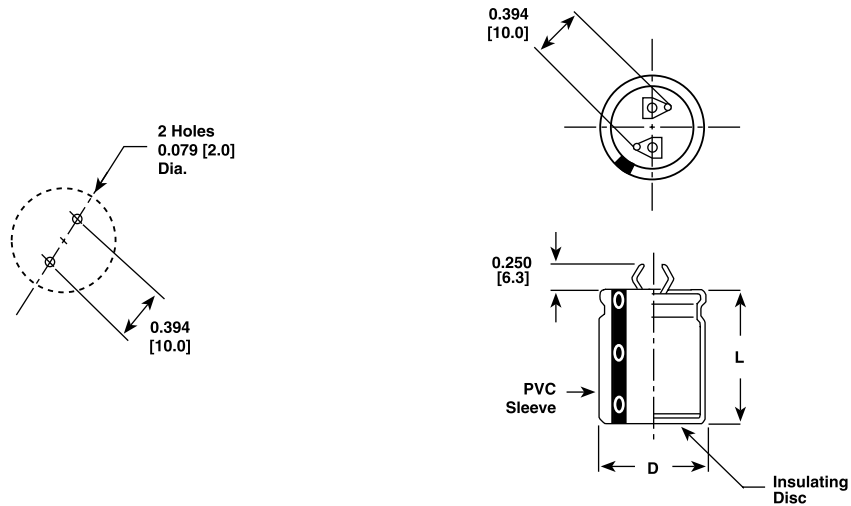
Style A



Style B



Style D





Aluminum Capacitors
+ 85 °C, Snap-In, General Purpose

Vishay Sprague

TERMINAL CONFIGURATION (numbers in brackets indicate millimeters)					
LEAD CODE	DESCRIPTION	OUTLINE DRAWINGS		AVAILABLE DIAMETERS	AVAILABLE VOLTAGES AND TYPES
		MOUNTING CONFIGURATION	TERMINAL CONFIGURATION		
D	Standard 2 pin snap-in			0.87 (22.0) - H 0.98 (25.0) - J 1.18 (30.0) - K 1.38 (35.0) - M	All voltages 81D, 81DA 82D, 82DA
A	2 straight wire lead molded cover with standoffs			0.98 (25.0) - J 1.18 (30.0) - K 1.38 (35.0) - M	All voltages 82D, 82DA V ≤ 250 V _{DC} 81D, 81DA
B	3 straight wire lead molded cover with standoffs			1.18 (30.0) - K 1.38 (35.0) - M	All voltages 82D, 82DA V ≤ 250 V _{DC} 81D, 81DA

ORDERING EXAMPLE

Electrolytic capacitor 82DA series: 82DA 222 M 050 HA 2 D E3

DESCRIPTION	
CODE	EXPLANATION
82DA	Product type
222	Capacitance value (2200 µF)
M	Tolerance (M = ± 20 %)
050	Voltage rating at 85 °C (50 V)
HA	Can size (see dimensions table)
2	PVC insulating sleeve
D	Terminal style (D = 2 pin snap-in)
E3	RoHS compliant

ELECTRICAL DATA AND ORDERING INFORMATION						
CAPACITANCE (µF)	PART NUMBER	NOMINAL CASE SIZE D x L	MAX. ESR at 25 °C (mΩ)		MAX. RIPPLE at + 85 °C (A)	
			120 Hz	20 to 40 kHz	120 Hz	20 to 40 kHz
16 WVDC at + 85 °C, SURGE = 20 V						
15 000.0	82DA153M016KA2D	1.181 x 0.984 (30.0 x 25.0)	67.7	54.0	3.07	3.47
25 WVDC at + 85 °C, SURGE = 30 V						
6800.0	82DA682M025HB2D	0.866 x 1.181 (22.0 x 30.0)	73.5	56.1	2.57	2.94
6800.0	82DA682M025JA2D	0.984 x 0.984 (25.0 x 25.0)	83.8	60.0	2.48	2.93
10 000.0	82DA103M025KA2D	1.181 x 0.984 (30.0 x 25.0)	71.0	54.0	3.00	3.47
35 WVDC at + 85 °C, SURGE = 40 V						
2700.0	82DA272M035HA2D	0.866 x 0.984 (22.0 x 25.0)	120.0	87.4	1.91	2.24
4700.0	82DA472M035JA2D	0.984 x 0.984 (25.0 x 25.0)	89.0	62.0	2.42	2.86
6800.0	82DA682M035KA2D	1.181 x 0.984 (30.0 x 25.0)	75.0	540.0	2.92	3.42
10 000.0	82DA103M035KB2D	1.181 x 1.181 (30.0 x 30.0)	57.0	41.0	3.60	4.20
50 WVDC at + 85 °C, SURGE = 63 V						
2200.0	82DA222M050HA2D	0.866 x 0.984 (22.0 x 25.0)	115.0	76.0	1.94	2.39
3300.0	82DA332M050HB2D	0.866 x 1.181 (22.0 x 30.0)	86.0	57.0	2.38	2.92
6800.0	82DA682M050JD2D	0.984 x 1.575 (25.0 x 40.0)	47.0	31.0	3.91	4.96
200 WVDC at + 85 °C, SURGE = 250 V						
330.0	82DA331M200JB2D	0.984 x 1.181 (25.0 x 30.0)	401.0	191.0	1.28	1.86
820.0	82DA821M200KD2D	1.181 x 1.575 (30.0 x 40.0)	180.0	87.0	2.36	3.41
1000.0	82DA102M200KE2D	1.181 x 1.969 (30.0 x 50.0)	142.0	67.0	2.89	4.22
1200.0	82DA122M200MD2D	1.378 x 1.575 (35.0 x 40.0)	147.0	74.0	2.89	4.06
250 WVDC at + 85 °C, SURGE = 300 V						
220.0	82DA221M250HD2D	0.866 x 1.575 (22.0 x 40.0)	558.0	166.0	1.12	2.12

Note

- Other ratings and voltages available on special order



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