

## Aluminum Capacitors + 85 °C, Snap-In

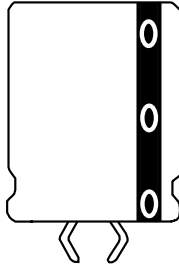


Fig.1 Component Outlines

### FEATURES

- High ripple capability
- Molded cover available in 2 and 3 terminal design with standoffs



**RoHS**  
COMPLIANT

QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Nominal case size Ø D x L in inches (mm)	1.38 x 3.15 (35.0 x 80.0)
Operating temperature	- 40 °C to + 85 °C
Rated capacitance range, C <sub>R</sub>	82 µF to 56 000 µF
Tolerance on C <sub>R</sub>	- 10 %, + 30 %
Rated voltage range, U <sub>R</sub>	6.3 WVDC to 250 WVDC
Termination	Snap mount or 2 and 3 terminal straight leads
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	$I = K \sqrt{CV}$ K = 4.0 at + 25 °C I in µA, C in µF, V in Volts

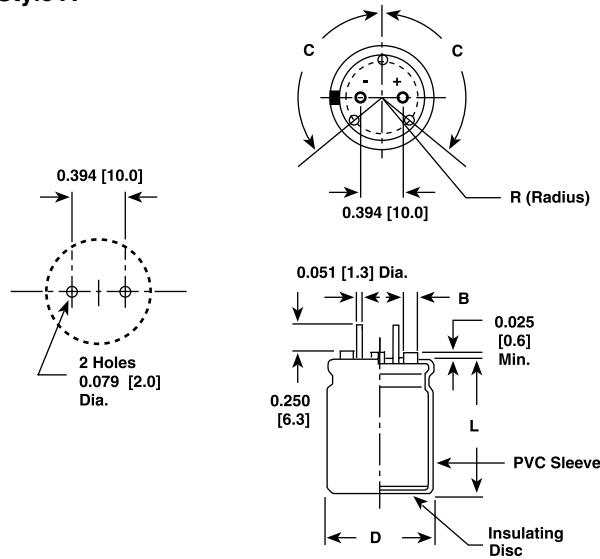
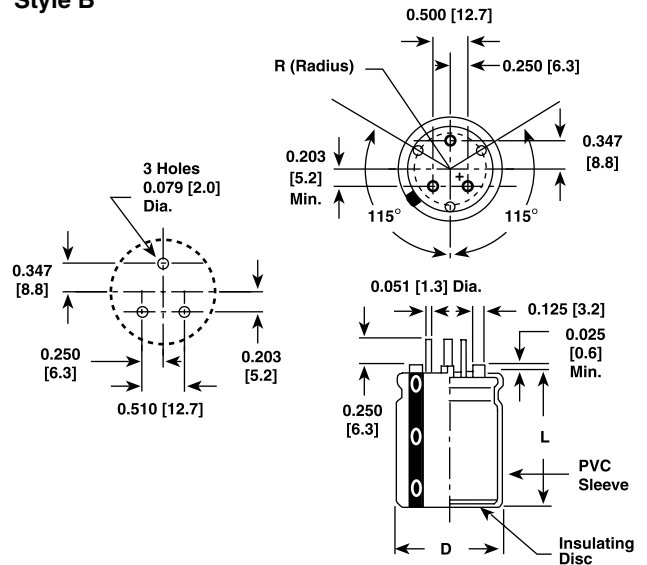
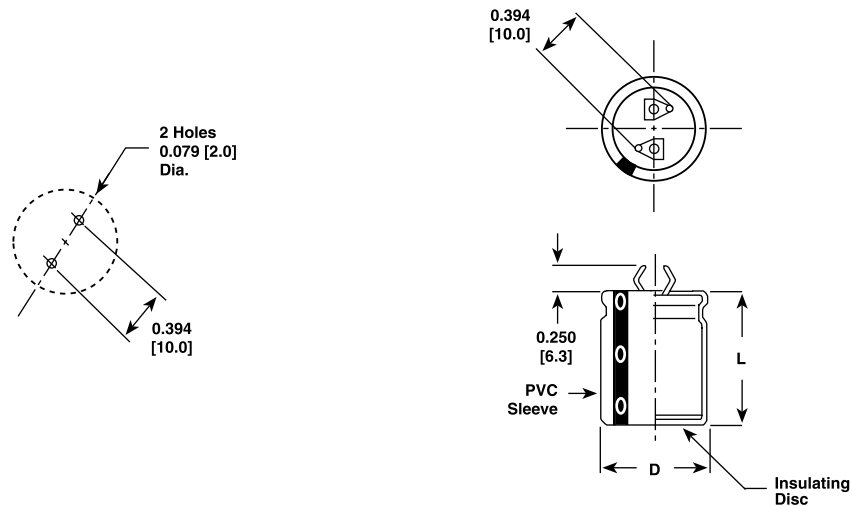
RIPPLE CURRENT MULTIPLIERS			
TEMPERATURE			
AMBIENT TEMPERATURE	MULTIPLIERS		
- 55 °C	2.0		
- 65 °C	1.7		
- 75 °C	1.4		
- 85 °C	1.0		
FREQUENCY (Hz)			
WVDC	50 TO 60	300 TO 1000	1000 AND UP
0 to 49	0.85	1.10	1.15
50 to 199	0.83	1.15	1.20
200 to 250	0.80	1.30	1.40
ESL (TYPICAL VALUES AT 1 MHz TO 10 MHz)			
Nominal Diameter	0.984 (25.0)	1.18 (30.0)	1.38 (35.0)
Typical ESL (nH)	8.0	10.0	12.0

DIMENSIONS in inches (millimeters)					
CASE CODE	DIAMETER		CASE CODE	LENGTH	
	D + 0.039 - 0 (+1.0 - 0)	L ± 0.079 (2.0)		D + 0.039 - 0 (+ 1.0 - 0)	L ± 0.079 (2.0)
JA	1.00 (25.0)	1.00 (25.0)	KD	1.18 (30.0)	1.57 (40.0)
JB	1.00 (25.0)	1.18 (30.0)	KE	1.18 (30.0)	2.00 (50.0)
JC	1.00 (25.0)	1.38 (35.0)	MB	1.38 (35.0)	1.18 (30.0)
JD	1.00 (25.0)	1.57 (40.0)	MC	1.38 (35.0)	1.38 (35.0)
JE	1.00 (25.0)	2.00 (50.0)	MD	1.38 (35.0)	1.57 (40.0)
KA	1.18 (30.0)	1.00 (25.0)	ME	1.38 (35.0)	2.00 (50.0)
KB	1.18 (30.0)	1.18 (30.0)	MF	1.38 (35.0)	2.50 (63.0)
KC	1.18 (30.0)	1.38 (35.0)	MG	1.38 (35.0)	3.18 (80.0)

DIMENSIONS in inches (millimeters)					
CIRCUIT BOARD MOUNT TERMINAL DIMENSIONS					
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 (2.3)	0.363 (9.2)	120°	0.391 (9.9) <sup>(1)</sup>
1.38 (35.0)	M	0.125 (3.2)	0.458 (11.6)	120°	0.458 (11.6) <sup>(1)</sup>

**Notes**

<sup>(1)</sup> Pin-type molded cover available on 80D/82D through 450 V. For 81D, only up through 250 V.

**DIMENSIONAL AND AVAILABLE FORMS**
**Style A**

**Style B**

**Style D**


**ORDERING EXAMPLE**

Electrolytic capacitor 80D series:

80D 122 P 200 ME 2 D E3

DESCRIPTION	
CODE	EXPLANATION
80D	Product type
122	Capacitance value (1200 $\mu$ F)
P	Tolerance (P = - 10 %/+ 30 %)
200	Voltage rating at 85 °C (200 V)
MA	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 ( $\mu$ F)	PART NUMBER	NOMINAL CASE SIZE D x L	MAX. ESR		MAX. RIPPLE at + 85 °C (A)	
			120 Hz	10 kHz to 40 kHz	120 Hz	10 kHz to 40 kHz
<b>16 WVDC at + 85 °C, SURGE = 20 V</b>						
8200.0	80D822P016JB2DE3	0.984 x 1.18 (25.0 x 30.0)	73.0	65.0	3.3	3.6
8200.0	80D822P016KA2DE3	1.18 x 0.984 (30.0 x 25.0)	91.0	84.0	2.8	3.0
10 000.0	80D103P016JC2DE3	0.984 x 1.38 (25.0 x 35.0)	59.0	53.0	3.9	4.2
15 000.0	80D153P016JE2DE3	0.984 x 1.97 (25.0 x 50.0)	37.0	33.0	5.6	6.0
22 000.0	80D223P016KE2DE3	1.18 x 1.97 (30.0 x 50.0)	35.0	32.0	5.8	6.1
33 000.0	80D333P016ME2DE3	1.38 x 1.97 (35.0 x 50.0)	19.0	17.0	9.4	10.0
<b>25 WVDC at + 85 °C, SURGE = 30 V</b>						
4700.0	80D427P025JB2DE3	0.984 x 1.18 (25.0 x 30.0)	76.0	65.0	3.2	3.6
6800.0	80D682P025KB2DE3	1.18 x 1.18 (30.0 x 30.0)	71.0	63.0	3.4	3.6
10 000.0	80D103P025JE2DE3	0.984 x 1.97 (25.0 x 50.0)	39.0	33.0	5.4	6.0
10 000.0	80D103P025MB2DE3	1.38 x 1.18 (35.0 x 30.0)	38.0	33.0	5.5	6.2
15 000.0	80D153P025KE2DE3	1.18 x 1.97 (30.0 x 50.0)	36.0	32.0	5.7	6.1
22 000.0	80D223P025ME2DE3	1.38 x 1.97 (35.0 x 50.0)	19.0	17.0	9.1	10.0
<b>35 WVDC at + 85 °C, SURGE = 44 V</b>						
4700.0	80D472P035KB2DE3	1.18 x 1.18 (30.0 x 30.0)	-	-	-	-
6800.0	80D682P035KC2DE3	1.18 x 1.38 (30.0 x 35.0)	60.0	51.0	3.8	4.2
10 000.0	80D103P035MC2DE3	1.38 x 1.38 (35.0 x 35.0)	33.0	27.0	6.2	7.2
12 000.0	80D123P035KE2DE3	1.38 x 1.38 (35.0 x 35.0)	33.0	27.0	6.2	7.2
15 000.0	80D153P035ME2DE3	1.38 x 1.97 (35.0 x 35.0)	20.0	17.0	8.8	10.0
<b>50 WVDC at + 85 °C, SURGE = 63 V</b>						
3300.0	80D332P050JD2DE3	0.984 x 1.57 (25.0 x 40.0)	57.0	42.0	3.9	4.9
3300.0	80D332P050KB2DE3	1.18 x 1.18 (30.0 x 30.0)	79.0	63.0	3.1	3.6
4700.0	80D472P050KD2DE3	1.18 x 1.57 (30.0 x 40.0)	51.0	41.0	4.3	4.9
6800.0	80D682P050KE2DE3	1.18 x 1.97 (30.0 x 50.0)	40.0	32.0	5.3	6.1
<b>63 WVDC at + 85 °C, SURGE = 79 V</b>						
1500.0	80D152P063JB2DE3	0.984 x 1.18 (25.0 x 30.0)	82.0	55.0	2.8	3.8
2200.0	80D222P063KB2DE3	1.18 x 1.18 (30.0 x 30.0)	72.0	54.0	3.2	3.9
3300.0	80D332P063MB2DE3	1.38 x 1.18 (35.0 x 30.0)	40.0	28.0	5.0	6.6
4700.0	80D472P063KE2DE3	1.18 x 1.97 (30.0 x 50.0)	36.0	28.0	5.4	6.4
6800.0	80D682P063ME2DE3	1.38 x 1.97 (35.0 x 50.0)	21.0	15.0	8.3	10.0



Aluminum Capacitors  
+ 85 °C, Snap-In

Vishay Sprague

<b>ELECTRICAL DATA AND ORDERING INFORMATION</b>						
CAPACITANCE (µF)	PART NUMBER	NOMINAL CASE SIZE D x L	MAX. ESR		MAX. RIPPLE at + 85°C (A)	
			120 Hz	10 kHz to 40 kHz	120 Hz	10 kHz to 40 kHz
<b>100 WVDC at + 85 °C, SURGE = 125 V</b>						
680.0	80D681P100JB2DE3	0.984 x 1.18 (25.0 x 30.0)	139.0	85.0	2.2	3.5
1000.0	80D102P100KB2DE3	1.18 x 1.18 (30.0 x 30.0)	111.0	74.0	2.7	3.7
1500.0	80D152P100JE2DE3	0.984 x 1.97 (25.0 x 25.0)	68.0	42.0	3.9	5.9
2200.0	80D222P100KE2DE3	1.18 x 1.97 (30.0 x 50.0)	55.0	37.0	4.7	6.2
3300.0	80D332P100ME2DE3	1.38 x 1.97 (35.0 x 50.0)	50.0	37.0	5.2	6.2
<b>200 WVDC at + 85 °C, SURGE = 250 V</b>						
150.0	80D151P200JA2DE3	0.984 x 0.984 (25.0 x 25.0)	660.0	375.0	1.3	3.2
220.0	80D221P200KA2DE3	1.18 x 0.984 (30.0 x 25.0)	460.0	272.0	1.7	3.6
330.0	80D331P200KC2DE3	1.18 x 1.38 (30.0 x 35.0)	278.0	165.0	2.4	4.9
470.0	80D471P200KD2DE3	1.18 x 1.57 (30.0 x 40.0)	220.0	131.0	2.8	5.7
680.0	80D681P200KD2DE3	1.18 x 1.57 (30.0 x 40.0)	248.0	127.0	2.1	4.7
820.0	80D821P200ME2DE3	1.38 x 1.97 (35.0 x 35.0)	130.0	82.0	4.3	7.4
1000.0	80D102P200ME2DE3	1.38 x 1.97 (35.0 x 50.0)	144.0	81.0	3.4	6.6
1200.0	80D122P200ME2DE3	1.38 x 1.97 (35.0 x 50.0)	141.0	75.0	3.4	6.6
<b>250 WVDC at + 85 °C, SURGE = 300 V</b>						
100.0	80D101P250JA2DE3	0.984 x 0.984 (25.0 x 25.0)	720.0	377.0	1.1	3.2
150.0	80D151P250JB2DE3	0.984 x 1.18 (25.0 x 30.0)	541.0	284.0	1.4	3.8
220.0	80D221P250JD2DE3	0.984 x 1.57 (25.0 x 40.0)	343.0	182.0	2.0	5.2
330.0	80D331P250JE2DE3	0.984 x 1.97 (25.0 x 50.0)	263.0	140.0	2.5	6.3
470.0	80D471P250KE2DE3	1.18 x 1.97 (30.0 x 50.0)	185.0	101.0	3.2	7.0
680.0	80D681P250ME2DE3	1.38 x 1.97 (35.0 x 50.0)	191.0	81.0	4.0	7.4

**Notes**

\* Some Inventory may include PVC sleeve with resin end seal (5D).  
Additional Part Numbers normally found in distribution inventory include:

80D102P100JD2DE3	80D222P063JD2DE3	80D391P200MB2DE3	80D472P050JC2DE3
80D102P200MD2DE3	80D222P080JE2DE3	80D392P050JE2DE3	80D682P035MB2DE3
80D103P035KE2DE3	80D223P010MB2DE3	80D472P050JC2DE3	80D682P050MD2DE3
80D123P016KB2DE3	80D272P035HB2DE3	80D472P050JE2DE3	80D822P025JD2DE3
80D152P050JA2DE3	80D272P035JA2DE3	80D472P050MB2DE3	80D822P035MB2DE3
80D153P016MB2DE3	80D332P063JE2DE3	80D681P200MD2DE3	80D822P050ME2DE3
80D222P050KA2DE3	80D333P010KE2DE3	80D682P035JE2DE3	

• Other capacitance values are available on request. Call for a quotation for price and delivery.



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