Aluminum Capacitors
+ 85 °C, Snap-In

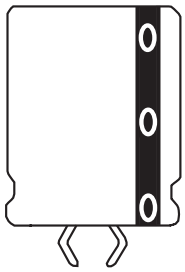


Fig.1 Component Outlines

FEATURES

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

Pb-free Available

QUICK REFERENCE DATA

DESCRIPTION	VALUE
Nominal case size ØD x L in mm	0.866" x 0.984" (22.0 x 25.0) to 1.38" x 3.15" (35.0 x 80.0)
Operating temperature	- 40 °C to + 85 °C
Rated capacitance range, C_R	82 µF to 56 000 µF
Tolerance on C_R	- 10 %, + 30 %
Rated voltage range, U_R	6.3 WVDC to 250 WVDC
Termination	Snap mount or 2 and 3 terminal straight leads
Life validation test at 85°C	2000 h: Δ CAP ≤ 15 % from initial measurement. Δ ESR ≤ 1.5 x initial specified limit. Δ DCL ≤ initial specified limit
Shelf life at 85°C	500 h: Δ CAP ≤ 15 % from initial measurement. Δ ESR ≤ 1.3 x initial specified limit. Δ DCL ≤ 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 - 49	0.85	1.10	1.15
50 - 199	0.83	1.15	1.20
200 - 250	0.80	1.30	1.40

ESL (TYPICAL VALUES AT 1 MHz TO 10 MHz)				
Nominal Diameter	0.866 (22.0)	0.984 (25.0)	1.18 (30.0)	1.38 (35.0)
Typical ESL (nH)	6.0	8.0	10.0	12.0

DIMENSIONS in inches (millimeters)

CASE CODE	DIAMETER	LENGTH	CASE CODE	DIAMETER	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)
HA	0.87 (22.0)	1.00 (25.0)	KC	1.18 (30.0)	1.38 (35.0)
HB	0.87 (22.0)	1.18 (30.0)	KD	1.18 (30.0)	1.57 (40.0)
HD	0.87 (22.0)	1.57 (40.0)	KE	1.18 (30.0)	2.00 (50.0)
JA	1.00 (25.0)	1.00 (25.0)	MB	1.38 (35.0)	1.18 (30.0)
JB	1.00 (25.0)	1.18 (30.0)	MC	1.38 (35.0)	1.38 (35.0)
JC	1.00 (25.0)	1.38 (35.0)	MD	1.38 (35.0)	1.57 (40.0)
JD	1.00 (25.0)	1.57 (40.0)	ME	1.38 (35.0)	2.00 (50.0)
JE	1.00 (25.0)	2.00 (50.0)	MF	1.38 (35.0)	2.50 (63.0)
KA	1.18 (30.0)	1.00 (25.0)	MG	1.38 (35.0)	3.18 (80.0)
KB	1.18 (30.0)	1.18 (30.0)			

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 (2.3)	0.363 (9.2)	120°	0.391 (9.9) (2)
1.38 (35.0)	M	0.125 (3.2)	0.458 (11.6)	120°	0.458 (11.6) (2)

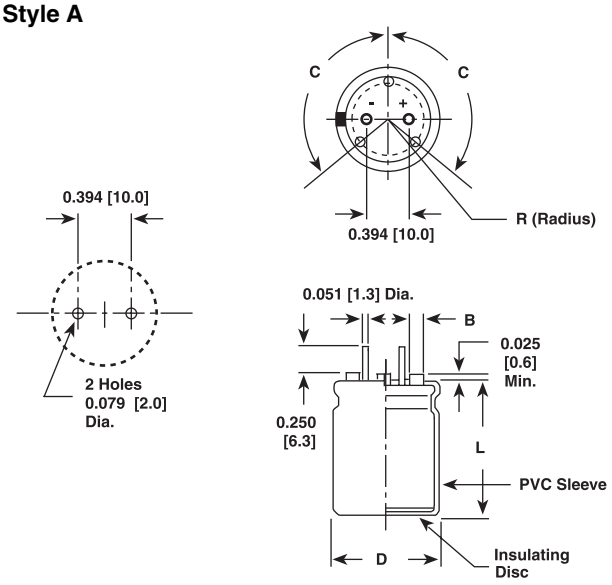
Notes

(1) Style A and B not available in 0.866" (22.0mm) diameter units

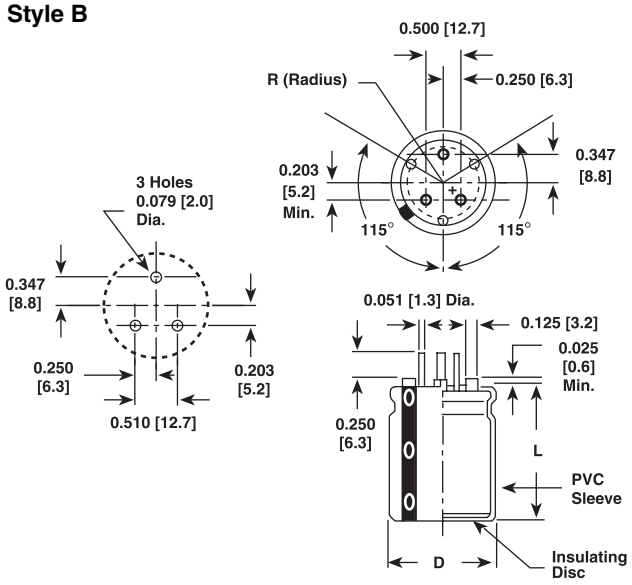
(2) Pin-type molded cover available on 80D/82D through 450 V. For 81D, only up through 250 V.

DIMENSIONAL AND AVAILABLE FORMS

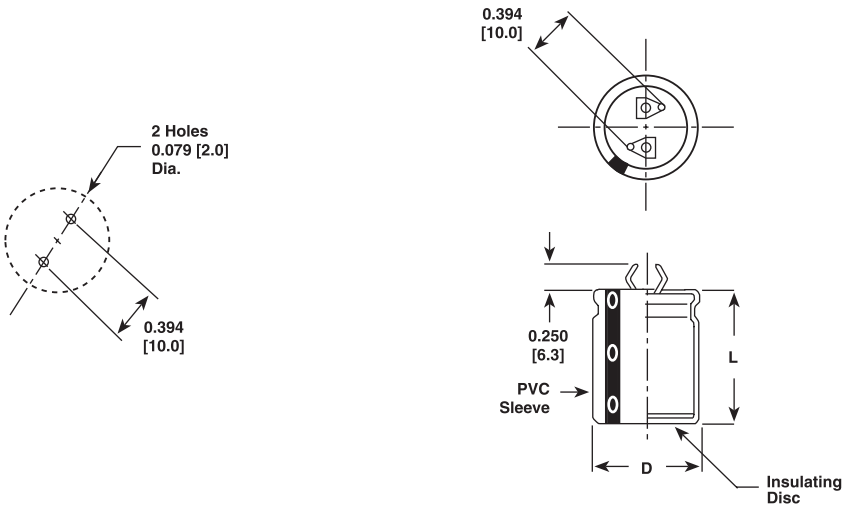
Style A



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 µF)
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 (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
16 WVDC at + 85 °C, SURGE = 20 V						
3900.0 (1)	80D392P016HA2D	0.866 x 0.984 (22.0 x 25.0)	113.0	99.0	2.5	2.8
5600.0	80D562P016HB2D	0.866 x 1.18 (22.0 x 30.0)	85.0	74.0	3.0	3.4
8200.0	80D822P016JB2D	0.984 x 1.18 (25.0 x 30.0)	73.0	65.0	3.3	3.6
8200.0	80D822P016KA2D	1.18 x 0.984 (30.0 x 25.0)	91.0	84.0	2.8	3.0
10 000.0 (1)	80D103P016JC2D	0.984 x 1.38 (25.0 x 35.0)	59.0	53.0	3.9	4.2
15 000.0 (1)	80D153P016JE2D	0.984 x 1.97 (25.0 x 50.0)	37.0	33.0	5.6	6.0
22 000.0	80D223P016KE2D	1.18 x 1.97 (30.0 x 50.0)	35.0	32.0	5.8	6.1
33 000.0 (1)	80D333P016ME2D	1.38 x 1.97 (35.0 x 50.0)	19.0	17.0	9.4	10.0
25 WVDC at + 85 °C, SURGE = 30 V						
2700.0 (1)	80D272P025HA2D	0.866 x 0.984 (22.0 x 25.0)	120.0	99.0	2.4	2.8
3300.0 (1)	80D332P025HB2D	0.866 x 1.18 (22.0 x 30.0)	90.0	74.0	2.9	3.4
4700.0	80D427P025JB2D	0.984 x 1.18 (25.0 x 30.0)	76.0	65.0	3.2	3.6
6800.0 (1)	80D682P025KB2D	1.18 x 1.18 (30.0 x 30.0)	71.0	63.0	3.4	3.6
10 000.0 (1)	80D103P025JE2D	0.984 x 1.97 (25.0 x 50.0)	39.0	33.0	5.4	6.0
10 000.0 (1)	80D103P025MB2D	1.38 x 1.18 (35.0 x 30.0)	38.0	33.0	5.5	6.2
15 000.0 (1)	80D153P025KE2D	1.18 x 1.97 (30.0 x 50.0)	36.0	32.0	5.7	6.1
22 000.0 (1)	80D223P025ME2D	1.38 x 1.97 (35.0 x 50.0)	19.0	17.0	9.1	10.0
35 WVDC at + 85 °C, SURGE = 44 V						
3300.0	80D332P035HB2D	0.866 x 1.18 (22.0 x 30.0)	96.0	74.0	2.7	3.4
4700.0 (1)	80D472P035KB2D	1.18 x 1.18 (30.0 x 30.0)	-	-	-	-
6800.0 (1)	80D682P035KC2D	1.18 x 1.38 (30.0 x 35.0)	60.0	51.0	3.8	4.2
10 000.0 (1)	80D103P035MC2D	1.38 x 1.38 (35.0 x 35.0)	33.0	27.0	6.2	7.2
12 000.0 (1)	80D123P035KE2D	1.38 x 1.38 (35.0 x 35.0)	33.0	27.0	6.2	7.2
15 000.0 (1)	80D153P035ME2D	1.38 x 1.97 (35.0 x 35.0)	20.0	17.0	8.8	10.0
50 WVDC at + 85 °C, SURGE = 63 V						
1200.0 (1)	80D122P050HA2D	0.866 x 0.984 (22.0 x 25.0)	144.0	99.0	2.8	2.0
1500.0	80D152P050HB2D	0.866 x 1.18 (22.0 x 30.0)	108.0	74.0	2.4	3.4
2200.0 (1)	80D222P050HD2D	0.866 x 1.57 (22.0 x 40.0)	69.0	48.0	3.4	4.7
3300.0 (1)	80D332P050JD2D	0.984 x 1.57 (25.0 x 40.0)	57.0	42.0	3.9	4.9
3300.0 (1)	80D332P050KB2D	1.18 x 1.18 (30.0 x 30.0)	79.0	63.0	3.1	3.6
4700.0 (1)	80D472P050KD2D	1.18 x 1.57 (30.0 x 40.0)	51.0	41.0	4.3	4.9
6800.0 (1)	80D682P050KE2D	1.18 x 1.97 (30.0 x 50.0)	40.0	32.0	5.3	6.1

ELECTRICAL DATA AND ORDERING INFORMATION

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
63 WVDC at + 85 °C, SURGE = 79 V						
820.0	80D821P063HA2D	0.866 x 0.984 (22.0 x 25.0)	132.0	82.0	2.0	3.0
1200.0 (1)	80D122P063HB2D	0.866 x 1.18 (22.0 x 30.0)	99.0	62.0	2.4	3.6
1500.0	80D152P063JB2D	0.984 x 1.18 (25.0 x 30.0)	82.0	55.0	2.8	3.8
2200.0	80D222P063KB2D	1.18 x 1.18 (30.0 x 30.0)	72.0	54.0	3.2	3.9
3300.0 (1)	80D332P063MB2D	1.38 x 1.18 (35.0 x 30.0)	40.0	28.0	5.0	6.6
4700.0 (1)	80D472P063KE2D	1.18 x 1.97 (30.0 x 50.0)	36.0	28.0	5.4	6.4
6800.0 (1)	80D682P063ME2D	1.38 x 1.97 (35.0 x 50.0)	21.0	15.0	8.3	10.0
100 WVDC at + 85 °C, SURGE = 125 V						
390.0	80D391P100HA2D	0.866 x 0.984 (22.0 x 25.0)	241.0	138.0	1.5	2.7
560.0	80D561P100HB2D	0.866 x 1.18 (22.0 x 30.0)	179.0	103.0	1.8	3.3
680.0	80D681P100JB2D	0.984 x 1.18 (25.0 x 30.0)	139.0	85.0	2.2	3.5
1000.0	80D102P100KB2D	1.18 x 1.18 (30.0 x 30.0)	111.0	74.0	2.7	3.7
1500.0	80D152P100JE2D	0.984 x 1.97 (25.0 x 25.0)	68.0	42.0	3.9	5.9
2200.0	80D222P100KE2D	1.18 x 1.97 (30.0 x 50.0)	55.0	37.0	4.7	6.2
3300.0	80D332P100ME2D	1.38 x 1.97 (35.0 x 50.0)	50.0	37.0	5.2	6.2
200 WVDC at + 85 °C, SURGE = 250 V						
100.0	80D101P200HA2D	0.866 x 0.984 (22.0 x 25.0)	1057.0	505.0	0.75	2.2
150.0	80D151P200JA2D	0.984 x 0.984 (25.0 x 25.0)	660.0	375.0	1.3	3.2
220.0 (1)	80D221P200KA2D	1.18 x 0.984 (30.0 x 25.0)	460.0	272.0	1.7	3.6
330.0 (1)	80D331P200KC2D	1.18 x 1.38 (30.0 x 35.0)	278.0	165.0	2.4	4.9
470.0 (1)	80D471P200KD2D	1.18 x 1.57 (30.0 x 40.0)	220.0	131.0	2.8	5.7
680.0	80D681P200KD2D	1.18 x 1.57 (30.0 x 40.0)	248.0	127.0	2.1	4.7
820.0 (1)	80D821P200ME2D	1.38 x 1.97 (35.0 x 35.0)	130.0	82.0	4.3	7.4
1000.0 (1)	80D102P200ME2D	1.38 x 1.97 (35.0 x 50.0)	144.0	81.0	3.4	6.6
1200.0 (1)	80D122P200ME2D	1.38 x 1.97 (35.0 x 50.0)	141.0	75.0	3.4	6.6
250 WVDC at + 85 °C, SURGE = 300 V						
100.0 (1)	80D101P250JA2D	0.984 x 0.984 (25.0 x 25.0)	720.0	377.0	1.1	3.2
150.0	80D151P250JB2D	0.984 x 1.18 (25.0 x 30.0)	541.0	284.0	1.4	3.8
220.0 (1)	80D221P250JD2D	0.984 x 1.57 (25.0 x 40.0)	343.0	182.0	2.0	5.2
330.0	80D331P250JE2D	0.984 x 1.97 (25.0 x 50.0)	263.0	140.0	2.5	6.3
470.0	80D471P250KE2D	1.18 x 1.97 (30.0 x 50.0)	185.0	101.0	3.2	7.0
680.0 (1)	80D681P250ME2D	1.38 x 1.97 (35.0 x 50.0)	191.0	81.0	4.0	7.4

Note

(1) These ratings are normally stocked.
Some Inventory may include PVC sleeve with resin end seal (5D).
Additional Part Numbers normally found in distribution inventory include:

80D102P050HA2D	80D182P035HA2D	80D332P063JE2D	80D682P035JE2D
80D102P063HB2D	80D222P035HB2D	80D333P010KE2D	80D682P035MB2D
80D102P100JD2D	80D222P050KA2D	80D391P200MB2D	80D682P050MD2D
80D102P200MD2D	80D222P063JD2D	80D392P050JE2D	80D820P250HA2D
80D103P035KE2D	80D222P080JE2D	80D472P050JC2D	80D822P025JD2D
80D123P016KB2D	80D223P010MB2D	80D472P050JE2D	80D822P035MB2D
80D152P050JA2D	80D272P035HB2D	80D472P050MB2D	80D822P050ME2D
80D153P016MB2D	80D272P035JA2D	80D681P200MD2D	

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

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