

## Aluminum Capacitors Powerlytic<sup>®</sup>, Large Can

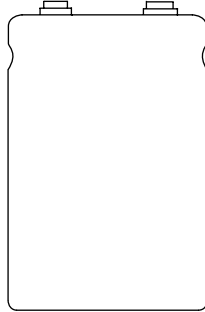


Fig. 1 Component Outlines

### FEATURES

- High capacitance per case size
- High ripple current
- Low leakage current
- Long shelf life and operating life
- Type 36D ratings recommended for replacement applications only. For new designs, see type 36DY.


**RoHS\***  
COMPLIANT

QUICK REFERENCE DATA	
DESCRIPTION	VALUE
Nominal case size Ø D x L in inches (mm)	1.453 x 2.250 (36.9 x 57.2) to 3.078 x 8.750 (78.2 x 222.3)
Operating temperature	- 40 °C to + 85 °C (36DX) - 40 °C to + 95 °C (36DE)
Rated capacitance range, C <sub>R</sub>	190 µF to 50 000 µF
Tolerance on C <sub>R</sub>	+ 75 %, - 10 % (10 WVDC to 100 WVDC) + 50 %, - 10 % (200 WVDC to 450 WVDC)
Rated voltage range, U <sub>R</sub>	10 WVDC to 450 WVDC
Life validation test at 85 °C	1000 h: ΔCAP ± 15 % from initial measurement. ΔESR 1.5 x initial specified limit.

DIMENSIONS in inches (millimeters)							
LARGE CAN CAPACITORS							
CASE CODE	NOMINAL		WITH INSULATING SLEEVE			TERMINAL SPACING M ± 0.016 (0.4)	TYPICAL WEIGHT (g)
	D ± 0.032 (0.8)	L ± 0.063 (1.6)	D (Max.)	L (Max.)	P TERMINAL H (Max.)		
AN	1.375 (35.0)	1.625 (41.0)	1.453 (36.9)	1.750 (44.5)	1.849 (47.0)	0.500 (12.7)	43.0
AY	1.375 (35.0)	1.875 (48.0)	1.453 (36.9)	2.000 (50.8)	1.099 (53.3)	0.500 (12.7)	54.0
AA	1.375 (35.0)	2.125 (54.0)	1.453 (36.9)	2.250 (57.2)	1.349 (59.7)	0.500 (12.7)	63.0
AM	1.375 (35.0)	2.625 (67.0)	1.453 (36.9)	2.750 (69.9)	1.849 (72.4)	0.500 (12.7)	82.0
AB	1.375 (35.0)	3.125 (79.0)	1.453 (36.9)	3.250 (82.6)	1.349 (85.1)	0.500 (12.7)	105.0
AL	1.375 (35.0)	3.625 (92.0)	1.453 (36.9)	3.750 (95.3)	1.849 (97.8)	0.500 (12.7)	122.0
AC	1.375 (35.0)	4.125 (105.0)	1.453 (36.9)	4.250 (108.0)	1.349 (110.5)	0.500 (12.7)	129.0
AD	1.375 (35.0)	4.625 (117.0)	1.453 (36.9)	4.750 (120.7)	1.849 (123.2)	0.500 (12.7)	162.0
AE	1.375 (35.0)	5.125 (130.0)	1.453 (36.9)	5.250 (133.4)	1.349 (125.9)	0.500 (12.7)	179.0
AF	1.375 (35.0)	5.625 (143.0)	1.453 (36.9)	5.750 (146.1)	1.849 (148.6)	0.500 (12.7)	201.0
EN	1.750 (44.0)	1.625 (41.0)	1.828 (46.4)	1.750 (44.5)	1.849 (47.0)	0.750 (19.1)	71.0
EY	1.750 (44.0)	1.875 (48.0)	1.828 (46.4)	2.000 (50.8)	2.099 (53.3)	0.750 (19.1)	88.0
EA	1.750 (44.0)	2.125 (54.0)	1.828 (46.4)	2.250 (57.2)	2.349 (59.7)	0.750 (19.1)	102.0
EM	1.750 (44.0)	2.625 (67.0)	1.828 (46.4)	2.750 (69.9)	2.849 (72.4)	0.750 (19.1)	133.0
EB	1.750 (44.0)	3.125 (79.0)	1.828 (46.4)	3.250 (82.6)	3.349 (85.1)	0.750 (19.1)	167.0
EL	1.750 (44.0)	3.625 (92.0)	1.828 (46.4)	3.750 (95.3)	3.849 (97.8)	0.750 (19.1)	198.0

**Note**

- To ensure delivery of lead (Pb)-free RoHS compliant parts during the transition period please contact your Vishay Sales office

\* Pb containing terminations are not RoHS compliant, exemptions may apply

<b>DIMENSIONS</b> in inches (millimeters)							
<b>LARGE CAN CAPACITORS</b>							
CASE CODE	NOMINAL		WITH INSULATING SLEEVE			TERMINAL SPACING M ± 0.016 (0.4)	TYPICAL WEIGHT (g)
	D ± 0.032 (0.8)	L ± 0.063 (1.6)	D (Max.)	L (Max.)	P TERMINAL H (Max.)		
EC	1.750 (44.0)	4.125 (105.0)	1.828 (46.4)	4.250 (108.0)	4.349 (110.5)	0.750 (19.1)	230.0
ED	1.750 (44.0)	4.625 (117.0)	1.828 (46.4)	4.750 (120.7)	4.849 (123.2)	0.750 (19.1)	252.0
EE	1.750 (44.0)	5.125 (130.0)	1.828 (46.4)	5.250 (133.4)	5.349 (135.9)	0.750 (19.1)	269.0
EF	1.750 (44.0)	5.625 (143.0)	1.828 (46.4)	5.750 (146.1)	5.849 (148.6)	0.750 (19.1)	318.0
BY	2.000 (51.0)	1.875 (48.0)	2.078 (52.8)	2.000 (50.8)	2.099 (53.3)	0.875 (22.2)	113.0
BA	2.000 (51.0)	2.125 (54.0)	2.078 (52.8)	2.250 (57.2)	2.349 (59.7)	0.875 (22.2)	133.0
BM	2.000 (51.0)	2.625 (67.0)	2.078 (52.8)	2.750 (69.9)	2.849 (72.4)	0.875 (22.2)	176.0
BB	2.000 (51.0)	3.125 (79.0)	2.078 (52.8)	3.250 (82.6)	3.349 (85.1)	0.875 (22.2)	213.0
BL	2.000 (51.0)	3.625 (92.0)	2.078 (52.8)	3.750 (95.3)	3.849 (97.8)	0.875 (22.2)	261.0
BC	2.000 (51.0)	4.125 (105.0)	2.078 (52.8)	4.250 (108.0)	4.349 (110.5)	0.875 (22.2)	381.0
BD	2.000 (51.0)	4.625 (117.0)	2.078 (52.8)	4.750 (120.7)	4.849 (123.2)	0.875 (22.2)	326.0
BE	2.000 (51.0)	5.125 (130.0)	2.078 (52.8)	5.250 (133.4)	5.349 (135.9)	0.875 (22.2)	337.0
BF	2.000 (51.0)	5.625 (143.0)	2.078 (52.8)	5.750 (146.1)	5.849 (148.6)	0.875 (22.2)	408.0
CB	2.500 (64.0)	3.125 (79.0)	2.578 (65.5)	3.250 (82.6)	N/A	1.125 (28.6)	329.0
CL	2.500 (64.0)	3.625 (92.0)	2.578 (65.5)	3.750 (95.3)	N/A	1.125 (28.6)	400.0
CC	2.500 (64.0)	4.125 (105.0)	2.578 (65.5)	4.250 (108.0)	N/A	1.125 (28.6)	473.0
CD	2.500 (64.0)	4.625 (117.0)	2.578 (65.5)	4.750 (120.7)	N/A	1.125 (28.6)	562.0
CE	2.500 (64.0)	5.125 (130.0)	2.578 (65.5)	5.250 (133.4)	N/A	1.125 (28.6)	607.0
CF	2.500 (64.0)	5.625 (143.0)	2.578 (65.5)	5.750 (146.1)	N/A	1.125 (28.6)	675.0
DB	3.000 (76.0)	3.125 (79.0)	3.078 (78.2)	3.250 (82.6)	N/A	1.250 (31.8)	496.0
DL	3.000 (76.0)	3.625 (92.0)	3.078 (78.2)	3.750 (95.3)	N/A	1.250 (31.8)	598.0
DC	3.000 (76.0)	4.125 (105.0)	3.078 (78.2)	4.250 (108.0)	N/A	1.250 (31.8)	700.0
DD	3.000 (76.0)	4.625 (117.0)	3.078 (78.2)	4.750 (120.7)	N/A	1.250 (31.8)	802.0
DE	3.000 (76.0)	5.125 (130.0)	3.078 (78.2)	5.250 (133.4)	N/A	1.250 (31.8)	944.0
DF	3.000 (76.0)	5.625 (143.0)	3.078 (78.2)	5.750 (146.1)	N/A	1.250 (31.8)	1004.0
DJ	3.000 (76.0)	8.625 (219.0)	3.078 (78.2)	8.750 (222.3)	N/A	1.250 (31.8)	1403.0

<b>DIMENSIONS</b> in inches (millimeters)						
<b>BRACKETS (RoHS COMPLIANT)</b>						
TYPE	PART NUMBER	A	B	C	FIGURE NUMBER	
2 Feet	1245860035A	1.375 (34.9)	1.781 (45.2)	2.218 (56.3)	1	
3 Feet	1245860036A	2.000 (50.8)	2.500 (63.5)	2.875 (73.0)	2	
3 Feet	1245860037A	2.500 (63.5)	3.000 (76.2)	3.375 (85.7)	2	
3 Feet	1245860038A	3.000 (76.2)	3.500 (88.9)	3.875 (98.4)	2	
<b>SCREW INSERT TERMINAL DIMENSIONS</b>						
TERMINAL CODE	THREAD	THREAD DEPTH	HEIGHT J ± 0.032 (0.81)	DIAMETER S ± 0.010 (0.25)	DIAMETER T ± 0.010 (0.25)	NOTES
A	10-32 NF-28	0.219 (5.6)	0.063 (1.6)	0.313 (8.0)	0.438 (11.1)	All cases codes
B	10-32 NF-28	0.375 (9.5)	0.250 (6.4)	0.313 (8.0)	0.438 (11.1)	All cases codes
D	1/4-28 NF-28	0.344 (8.7)	0.093 (2.4)	0.688 (17.5)	-	C and D dia. codes only

### DIMENSIONS AND AVAILABLE FORMS

#### Screw Insert Terminals



#### Large Can Brackets



### ORDERING EXAMPLE

Electrolytic capacitor 36DX series: 36DX 392 G 075 BB 2 A

DESCRIPTION	
CODE	EXPLANATION
36DX	Product type
392	Capacitance value (3900 $\mu$ F)
G	Tolerance (G = - 10 %/+ 75 %; F = -10 %/+ 50 %)
075	Voltage rating at 85 °C (75 V)
BB	Can size (see dimensions table)
2	PVC insulating sleeve
A	Terminal code (low insert 10-32 screw thread)



<b>ELECTRICAL DATA</b> (Original/improved ratings)		
CAPACITANCE (μF)	CASE CODE	PART NUMBER
<b>TYPE 36D ORIGINAL RATINGS</b>		
<b>25 WVDC at + 85 °C, SURGE = 30 V</b>		
2700.0 <sup>(1)</sup>	AA	36D272G025AA2A
5500.0 <sup>(1)</sup>	AB	36D552G025AB2A
<b>40 WVDC at + 85 °C, SURGE = 50 V</b>		
5500.0 <sup>(1)</sup>	AC	36D552G040AC2A
8400.0 <sup>(1)</sup>	BB	36D842G040BB2A
<b>50 WVDC at + 85 °C, SURGE = 650 V</b>		
1300.0 <sup>(1)</sup>	AA	36D132G050AA2A
5200.0 <sup>(1)</sup>	AE	36D522G050AE2A
<b>TYPE 36DE IMPROVED RATINGS</b>		
<b>25 WVDC at + 85 °C, SURGE = 30 V</b>		
40 000.0 <sup>(1)</sup>	BB	36DE403G025BB2A
<b>TYPE 36DE ORIGINAL RATINGS</b>		
<b>10 WVDC at + 85 °C, SURGE = 12 V</b>		
23 000.0 <sup>(1)</sup>	AA	36DE233G010AA2A
<b>40 WVDC at + 85 °C, SURGE = 50 V</b>		
24 000.0 <sup>(1)</sup>	BB	36DE243G040BB2A
<b>TYPE 36DX IMPROVED RATINGS</b>		
<b>200 WVDC at + 85 °C, SURGE = 250 V</b>		
850.0 <sup>(1)</sup>	AC	36DX851F200AC2A
2000.0 <sup>(1)</sup>	BC	36DX202F200BC2A
2800.0 <sup>(1)</sup>	BC	36DX282F200BC2A
3400.0 <sup>(1)</sup>	CC	36DX342F200CC2A
7400.0 <sup>(1)</sup>	DF	36DX742F200DF2A
<b>250 WVDC at + 85 °C, SURGE = 300 V</b>		
500.0 <sup>(1)</sup>	AB	36DX501F250AB2A
<b>350 WVDC at + 85 °C, SURGE = 400 V</b>		
260.0 <sup>(1)</sup>	AB	36DX261F350AB2A
5100.0	DJ	36DX512F350DJ2A
<b>450 WVDC at + 85 °C, SURGE = 525 V</b>		
230.0 <sup>(1)</sup>	AC	36DX231F450AC2A
2000.0 <sup>(1)</sup>	DF	36DX202F450DF2A
<b>TYPE 36DX ORIGINAL RATINGS</b>		
<b>15 WVDC at + 85 °C, SURGE = 18 V</b>		
7500.0 <sup>(1)</sup>	AA	36DX752G015AA2A
15 000.0 <sup>(1)</sup>	AB	36DX153G015AB2A
22 000.0 <sup>(1)</sup>	AC	36DX223G015AC2A
34 000.0 <sup>(1)</sup>	AF	36DX343G015AF2A
50 000.0 <sup>(1)</sup>	BC	36DX503G015BC2A
<b>25 WVDC at + 85 °C, SURGE = 30 V</b>		
4500.0 <sup>(1)</sup>	AA	36DX452G025AA2A
9000.0 <sup>(1)</sup>	AB	36DX902G025AB2A
13 000.0 <sup>(1)</sup>	AC	36DX133G025AC2A
30 000.0 <sup>(1)</sup>	BC	36DX303G025BC2A
50 000.0 <sup>(1)</sup>	CC	36DX503G025CC2A



<b>ELECTRICAL DATA</b> (Original/improved ratings)		
<b>CAPACITANCE (μF)</b>	<b>CASE CODE</b>	<b>PART NUMBER</b>
<b>30 WVDC at + 85 °C, SURGE = 40 V</b>		
4000.0 <sup>(1)</sup>	AA	36DX402G030AA2A
8000.0 <sup>(1)</sup>	AB	36DX802G030AB2A
18 000.0 <sup>(1)</sup>	AF	36DX183G030AF2A
26 000.0	BC	36DX263G030BC2A
<b>40 WVDC at + 85 °C, SURGE = 50 V</b>		
2900.0 <sup>(1)</sup>	AA	36DX292G040AA2A
5800.0 <sup>(1)</sup>	AB	36DX582G040AB2A
8700.0 <sup>(1)</sup>	AC	36DX872G040AC2A
20 000.0 <sup>(1)</sup>	BC	36DX203G040BC2A
34 000.0 <sup>(1)</sup>	CC	36DX343G040CC2A
<b>50 WVDC at + 85 °C, SURGE = 65 V</b>		
2400.0 <sup>(1)</sup>	AA	36DX242G050AA2A
4800.0 <sup>(1)</sup>	AB	36DX482G050AB2A
7200.0 <sup>(1)</sup>	AC	36DX722G050AC2A
11 000.0	AF	36DX113G050AF2A
16 000.0 <sup>(1)</sup>	BC	36DX163G050BC2A
24 000.0 <sup>(1)</sup>	BF	36DX243G050BF2A
40 000.0 <sup>(1)</sup>	CF	36DX403G050CF2A
41 000.0 <sup>(1)</sup>	DC	36DX413G050DC2A
<b>75 WVDC at + 85 °C, SURGE = 95 V</b>		
1400.0 <sup>(1)</sup>	AA	36DX142G075AA2A
10 000.0 <sup>(1)</sup>	BC	36DX103G075BC2A
17 000.0 <sup>(1)</sup>	CC	36DX173G075CC2A

**Note**

<sup>(1)</sup> This is representative of normally stocked ratings. Many other ratings are available.

Check your nearest stocking distributor. Additional Part Numbers normally found in distribution inventory include:

36D103G075CC2A	36D231G013BB2A	36D902G050BC2A	36DX332F350DF2A
36D123G040BC2A	36D262G050AB2A	36DX103F250DJ2A	36DX352F450DJ2A
36D133G015AC2A	36D392G050AC2A	36DX172G100AB2A	36DX372F350DF2A
36D153G050CC2A	36D392G075BB2A	36DX203G025AF2A	36DX422G075AC2A
36D191F350AB2A	36D602G050BB2A	36DX312F450DJ2A	



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