

Aluminum Capacitors Powerlytic[®], 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 _R | 190 µF to 50 000 µF |
| Tolerance on C _R | + 75 %, - 10 % (10 WVDC to 100 WVDC) + 50 %, - 10 % (200 WVDC to 450 WVDC) |
| Rated voltage range, U _R | 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



| 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.) | | |
| 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 |

| DIMENSIONS in inches (millimeters) | | | | | | |
|------------------------------------|--------------|--------------|----------------------------|------------------------------|------------------------------|-------------------------|
| BRACKETS (RoHS COMPLIANT) | | | | | | |
| 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 | |
| SCREW INSERT TERMINAL DIMENSIONS | | | | | | |
| 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 µF) |
| 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) |



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



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

Note

⁽¹⁾ 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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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.