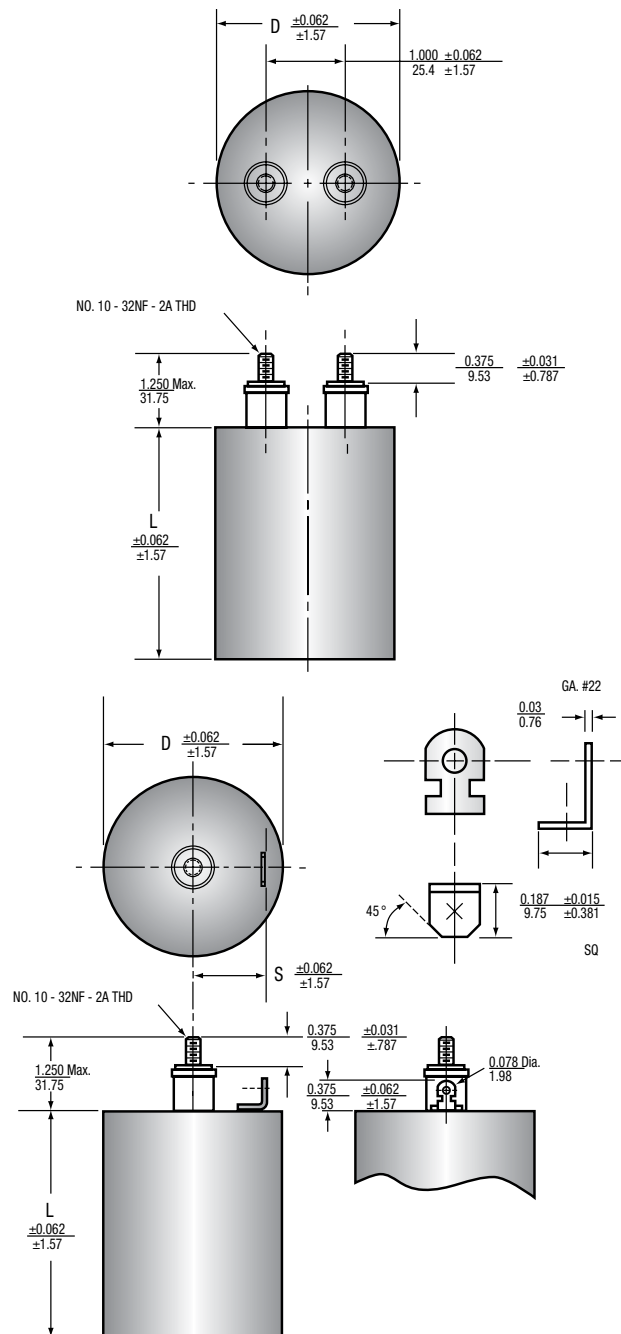


HIGH DISCHARGE RATE ENERGY-STORAGE METALIZED-FILM CAPACITORS



- DISCHARGE RATE:** 10 discharges per sec. maximum
- INDUCTANCE:** 0.03 to 0.05 μ H typical at resonance (terminal style 1 only)
- INSULATION RESISTANCE:**
Measured at 500 VDC after a 2 minute charge.
 - At +25°C, 5,000 Megaohm-Microfarads

DIMENSIONS (in inches / mm)



FEATURES

- High energy density
- Metal tubular case
- Lightweight
- 5 joules / cu. in.
- 80 joules / pound

MAJOR APPLICATIONS:

Flash, laser, strobe, beacons.

PHYSICAL CHARACTERISTICS

CONSTRUCTION:

Non-inductive wound proprietary composition dielectric, silicone oil impregnated

CASE:

Hermetically sealed drawn cylindrical enclosure. Available with case grounded (1 terminal) and insulated case (2 terminals).

MARKING:

Dearborn trademark, type or catalog number, capacitance, tolerance and voltage.

SPECIAL REQUIREMENTS:

The operational characteristics as stated are typical of standard capacitors. Special designs to meet additional or different requirements are available. Consult factory for additional information.

ELECTRICAL SPECIFICATIONS

CAPACITANCE RANGE: 5 μ F to 100 μ F

CAPACITANCE TOLERANCE: +20% -10%, $\pm 10\%$

OPERATING TEMPERATURE: 0°C to +40°C

DC VOLTAGE RANGE: 1,000 VDC to 2,500 VDC

DISSIPATION FACTOR: 1.0% maximum

VOLTAGE TEST: 120% of rated voltage for 2 minutes

HIGH DISCHARGE RATE ENERGY-STORAGE METALIZED-FILM CAPACITORS

TYPE 681P

DIMENSIONS

| Case Code | Inches | | | Millimeters* | | |
|-----------|--------|-------|-------|--------------|-------|-------|
| | D | L | S | D | L | S |
| DE | 1.375 | 2.500 | 0.562 | 34.9 | 63.5 | 14.27 |
| DG | 1.375 | 3.500 | 0.562 | 34.9 | 88.9 | 14.27 |
| EE | 1.500 | 2.500 | 0.680 | 38.1 | 63.5 | 17.27 |
| EG | 1.500 | 3.500 | 0.680 | 38.1 | 88.9 | 17.27 |
| FG | 1.625 | 3.500 | 0.750 | 41.3 | 88.9 | 19.10 |
| FJ | 1.625 | 4.500 | 0.750 | 41.3 | 114.3 | 19.10 |
| JG | 2.000 | 3.500 | 0.750 | 50.8 | 88.9 | 19.10 |
| JJ | 2.000 | 4.500 | 0.750 | 50.8 | 114.3 | 19.10 |
| LJ | 2.250 | 4.500 | 0.750 | 57.2 | 114.3 | 19.10 |
| NJ | 2.500 | 4.500 | 0.750 | 63.5 | 114.3 | 19.10 |

* Based on 1" = 25.4 mm.

TYPICAL WEIGHT

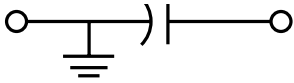
| Case Code | Ounces | Grams |
|-----------|--------|-------|
| DE | 3.6 | 102 |
| DG | 5.1 | 145 |
| EE | 4.4 | 125 |
| EG | 6.1 | 173 |
| FG | 7.2 | 204 |
| FJ | 9.2 | 261 |
| JG | 11 | 312 |
| JJ | 14 | 397 |
| LJ | 18 | 510 |
| NJ | 22 | 624 |

STANDARD RATINGS

| µF | Rated Joules | Grounded Number | | Case Code | Max. Peak Discharge Current (in Amps) | Energy Density (in Joules/in ³) |
|------------------|--------------|-----------------|----------------|-----------|---------------------------------------|---|
| | | Grounded Case | Insulated Case | | | |
| 1,000 VDC | | | | | | |
| 20 | 10 | 681P206B21K01 | - | EE | 585 | 2.28 |
| 30 | 15 | 681P306B21K01 | - | EG | 585 | 2.42 |
| 50 | 25 | 681P506B21K01 | - | FJ | 645 | 2.69 |
| 80 | 40 | 681P806B21K01 | 681P806B21K02 | JJ | 1040 | 2.86 |
| 100 | 50 | 681P107B21K01 | 681P107B21K02 | LJ | 1330 | 2.78 |
| 1,500 VDC | | | | | | |
| 10 | 11 | 681P106B21K51 | - | EE | 400 | 2.50 |
| 20 | 23 | 681P206B21K51 | - | EG | 460 | 3.71 |
| 30 | 34 | 681P306B21K51 | - | FJ | 505 | 3.66 |
| 50 | 56 | 681P506B21K51 | 681P506B21K52 | JJ | 810 | 4.00 |
| 60 | 68 | 681P606B21K51 | 681P606B21K52 | LJ | 1040 | 3.78 |
| 80 | 90 | 681P806B21K51 | 681P806B21K52 | NJ | 1360 | 4.09 |
| 2,000 VDC | | | | | | |
| 5 | 10 | 681P505B22K01 | - | DE | 250 | 2.70 |
| 10 | 20 | 681P106B22K01 | - | DG | 290 | 3.85 |
| 20 | 40 | 681P206B22K01 | 681P206B22K02 | JG | 635 | 3.64 |
| 30 | 60 | 681P306B22K01 | 681P306B22K02 | JJ | 635 | 4.29 |
| 50 | 100 | 681P506B22K01 | 681P506B22K02 | NJ | 1080 | 4.55 |
| 2,500 VDC | | | | | | |
| 5 | 16 | 681P505B22K51 | - | EE | 310 | 3.64 |
| 10 | 31 | 681P106B22K51 | - | FG | 340 | 4.25 |
| 15 | 47 | 681P156B22K51 | 681P156B22K52 | JG | 550 | 4.27 |
| 20 | 63 | 681P206B22K51 | 681P206B22K52 | JJ | 550 | 4.50 |
| 35 | 110 | 681P356B22K51 | 681P356B22K52 | NJ | 930 | 5.00 |

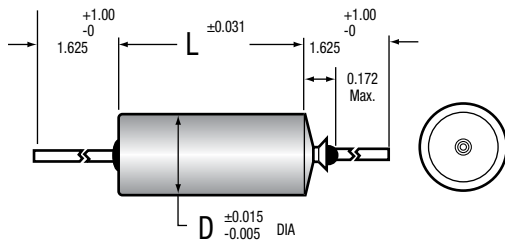
Additional capacitance values, voltages, and tolerances are available upon request.

SECTION GROUNDED TO CASE

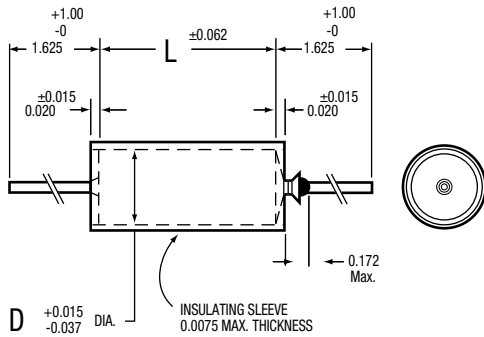


DIMENSIONS (in inches)

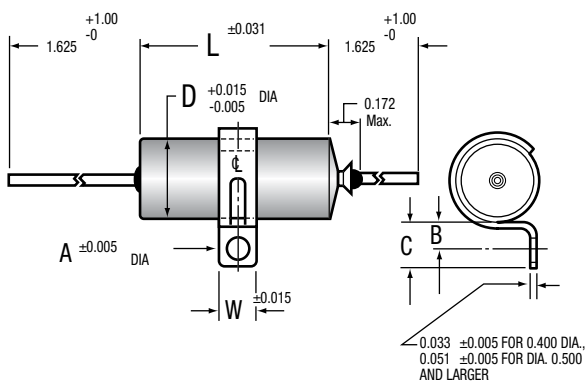
CASE STYLE 01



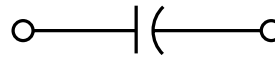
CASE STYLE 03



CASE STYLE 12

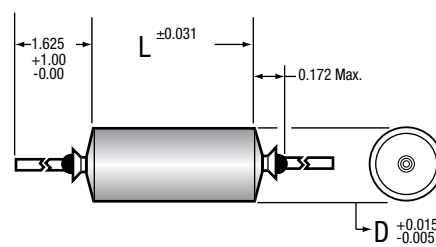


SECTION INSULATED FROM CASE

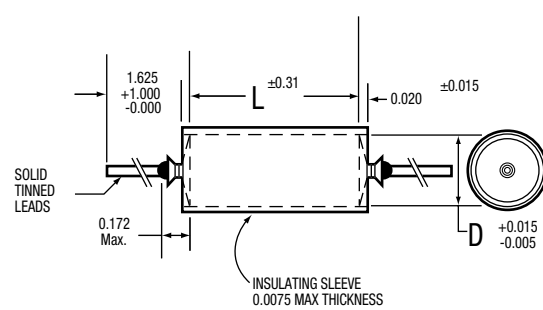


DIMENSIONS (in inches)

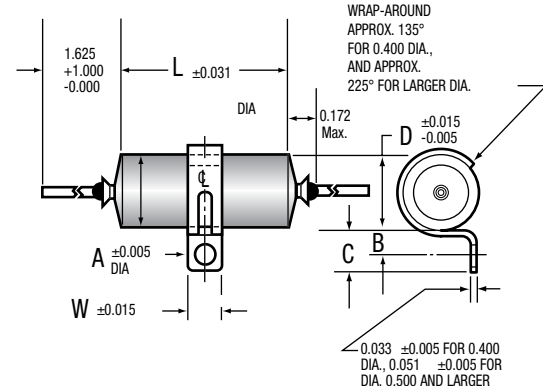
CASE STYLE 02



CASE STYLE 04



CASE STYLE 13



The length of grounded styles is 0.062" shorter than the length shown in tabulations in the catalog.

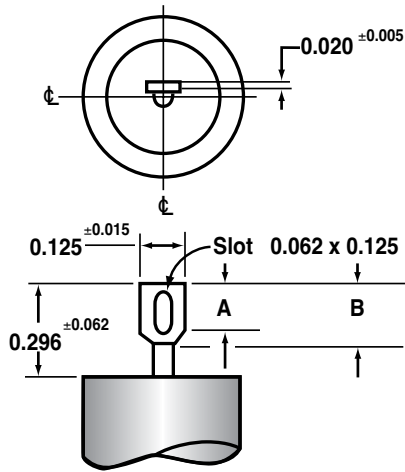
GUIDE TO ORDERING

BRACKET DIMENSIONS (Style 12 & 13 / in inches)

| D | W | A | B | C |
|-------|-------|-------|-------------|-------------|
| 0.400 | 0.250 | 0.144 | 0.187±0.015 | 0.312±0.031 |
| 0.500 | 0.500 | 0.156 | 0.250±0.031 | 0.437±0.062 |
| 0.562 | 0.500 | 0.156 | 0.250±0.031 | 0.437±0.062 |
| 0.670 | 0.500 | 0.156 | 0.250±0.031 | 0.437±0.062 |
| 0.750 | 0.500 | 0.156 | 0.250±0.031 | 0.437±0.062 |
| 1.000 | 0.500 | 0.156 | 0.250±0.031 | 0.437±0.062 |

*Based on 1 in. = 25.4 mm

TYPICAL TAB TERMINAL DIMENSIONS



Dwg. No A-9525

A = 0.156 ± 0.015" (3.96 ± 0.38 mm)

B = 0.187 ± 0.015" (4.75 ± 0.38 mm)

Tab Terminal available only on case diameters equal to or greater than 0.400 inches.

T1 & T3 styles are supplied with one tab terminal on the insulated end and a ground lead on the opposite end.

METAL CASE

EXAMPLE:

218P

223

X9

100

S

02

CATALOG NUMBERING SYSTEM

Case style

Terminal: S = Wire leads T = Soldering tab*.

DC Voltage rating: Expressed in volts.
See standard ratings charts for voltage code.

Capacitance Tolerance: X0 = $\pm 20\%$
X9 = $\pm 10\%$
X5 = $\pm 5\%$
X2 = $\pm 2\%$

Capacitance: Expressed in picofarads, the first two digits are significant figures; the third is the number of zeros following. See standard ratings tables for capacitance code.

Dearborn type number: Identifies the basic capacitor.

* Soldering tabs are available only on case diameters equal to or greater than 0.400 inches.

WRAP AND FILL

EXAMPLE:

430P

183

X9

100

X

F

CATALOG NUMBERING SYSTEM

"F" applies only to "ROHS" compliant parts.

Terminal: No suffix required unless specified on applicable specification sheet (Terminal style).

DC Voltage rating: Expressed in volts.
See standard ratings charts for voltage code.

Capacitance Tolerance: X0 = $\pm 20\%$
X9 = $\pm 10\%$
X5 = $\pm 5\%$
X2 = $\pm 2\%$

Capacitance: Expressed in picofarads, the first two digits are significant figures; the third is the number of zeros following. See standard ratings tables for capacitance code.

Dearborn type number: Identifies the basic capacitor.