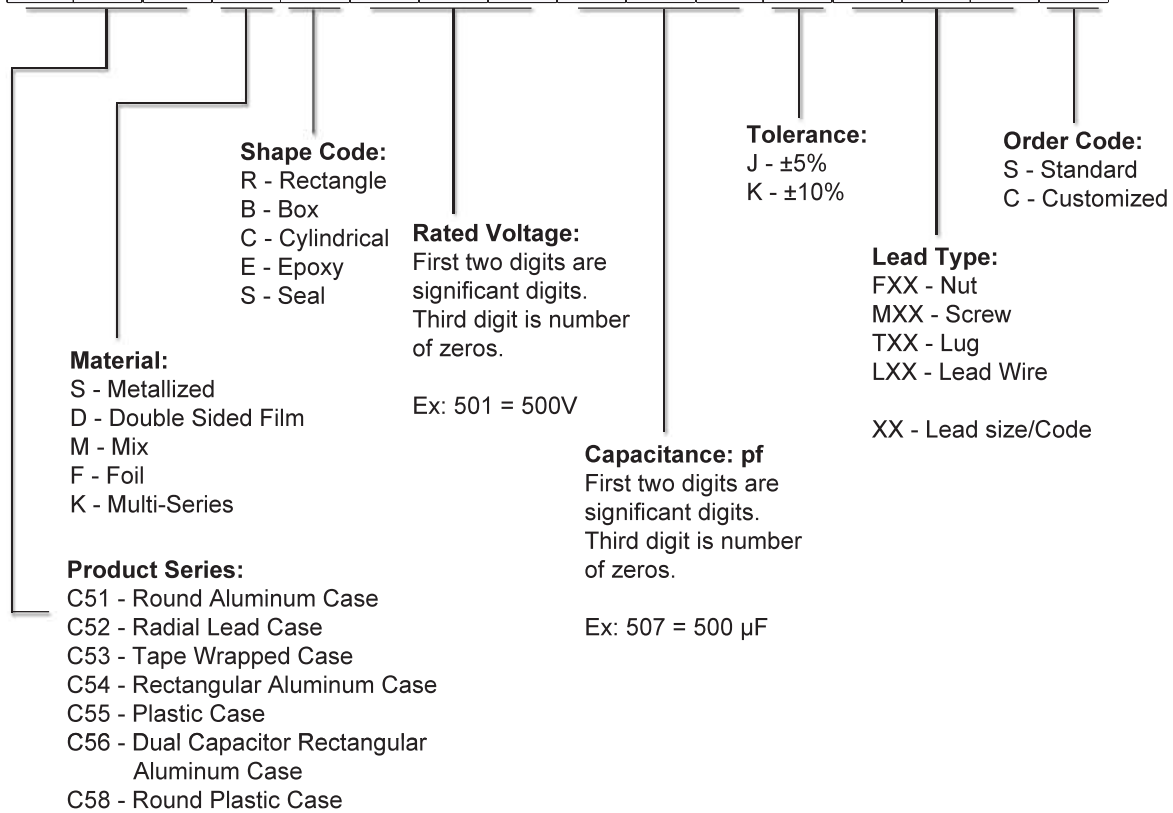


# DC Link Nomenclature

**C 5 1 S C 5 0 1 5 0 7 K T X X C**





# Series C51

## DC-Link Polypropylene Capacitors

**Features:** Flame retardant to UL94, extended metalized film, dry connection, aluminum case with resin sealing, copper nut or screw terminals, high stability, low ESR and ESL, self healing.

**Applications:** DC-link and filter for UPS, SMPSs, inverter, welding machine power.

### Specifications

**1) Operating Temperature**

-40°C to 85°C.

**2) Capacitance**

80µF to 4000µF.

**3) Rated Voltage**

500 VDC to 2000 VDC.

**4) Tolerance**

±5% or ±10%.

**5) Test Voltage Between Terminals and Case**

3000V 50Hz 60s, 25°C±5°C.

**6) Test Voltage Between Terminals**

1.5 rated DC voltage 10s 25°C±5°C.

**7) Dissipation Factor**

0.2% max at 25°C±5°C, 100Hz

**8) Insulation Resistance**

5000 MΩ•µF min, at 100 VDC, 25°C±5°C, 60s

**9) Life Expectancy**

200000h at rated DC voltage and 70°C.

**10) Reference Standards**

GB/T 17702, IEC 61071

### Surge Voltage Limits

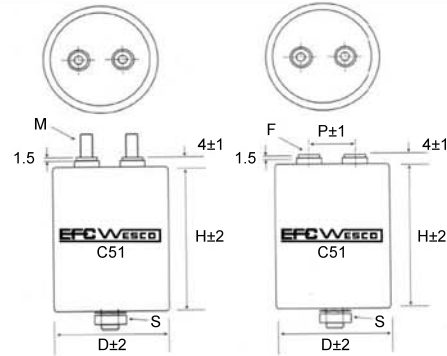
| Surge Voltage (VDC) | Max Duration                       |
|---------------------|------------------------------------|
| 1.1 x Rated         | 30% of service period              |
| 1.15 x Rated        | 30 min./day                        |
| 1.2 x Rated         | 5 min./day                         |
| 1.3 x Rated         | 1 min./day                         |
| 1.5 x Rated         | 100mS/day; no more than 1000 times |



**C51**  
Round Aluminum Case

**DC Link Polypropylene Capacitors**

**Dimensions and Ratings**



| Case      | Terminals |             |        |             | Stud Mounting |          |              |
|-----------|-----------|-------------|--------|-------------|---------------|----------|--------------|
|           | M         | Torque      | F      | Torque      | P             | S        | Torque       |
| D=55      | M5 X 20   | 2.8N. M max | M5 X 8 | 3.5N. M max | 22.0          | M10 X 12 | 6.0N. M max  |
| D=60, 65  | M6 X 20   | 3.8N. M max | M6 X 9 | 4.5N. M max | 28.5          | M12 X 16 | 10.0N. M max |
| D=76,86   | M8 X 20   | 8.5N. M max | M6 X 9 | 4.5N. M max | 32.0          |          |              |
| D=96, 116 | M8 X 20   | 8.5N. M max | M6 X 9 | 4.5N. M max | 50.0          | M12X16   | 10.0N. M max |

| Cap. |                  | <b>500 VDC</b> |     |    |               |             |
|------|------------------|----------------|-----|----|---------------|-------------|
| µF   | Part #           | Dimension (mm) |     |    | Irms Max<br>A | ESR<br>(mΩ) |
|      |                  | D              | H   | P  |               |             |
| 400  | C51SC501407K***# | 65             | 97  | 28 | 50            | 3.0         |
| 500  | C51SC501507K***# | 65             | 120 | 28 | 60            | 2.7         |
| 500  | C51SC501507K***# | 76             | 97  | 32 | 60            | 2.7         |
| 750  | C51SC501757K***# | 76             | 120 | 32 | 80            | 2.5         |
| 750  | C51SC501757K***# | 86             | 97  | 32 | 80            | 2.5         |
| 1000 | C51SC501108K***# | 86             | 120 | 32 | 100           | 2.2         |
| 1500 | C51SC501158K***# | 76             | 225 | 32 | 130           | 2.0         |
| 1800 | C51SC501188K***# | 116            | 120 | 50 | 150           | 1.8         |
| 2000 | C51SC501208K***# | 86             | 225 | 32 | 160           | 1.5         |
| 2400 | C51SC501248K***# | 96             | 225 | 45 | 180           | 1.2         |
| 3000 | C51SC501308K***# | 96             | 225 | 45 | 210           | 1.0         |
| 3600 | C51SC501368K***# | 116            | 225 | 50 | 280           | 0.8         |
| 4000 | C51SC501408K***# | 116            | 225 | 50 | 300           | 0.5         |

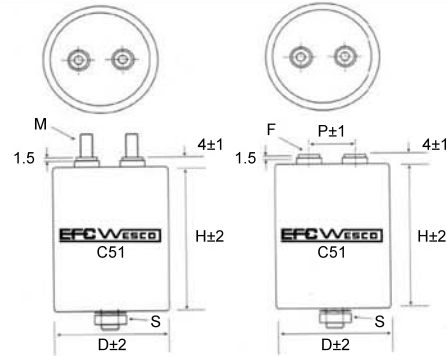
| Cap. |                  | <b>800 VDC</b> |     |    |               |             |
|------|------------------|----------------|-----|----|---------------|-------------|
| µF   | Part #           | Dimension (mm) |     |    | Irms Max<br>A | ESR<br>(mΩ) |
|      |                  | D              | H   | P  |               |             |
| 430  | C51SC801437K***# | 76             | 120 | 32 | 40            | 4.5         |
| 550  | C51SC801557K***# | 86             | 120 | 32 | 46            | 4.0         |
| 800  | C51SC801807K***# | 76             | 225 | 32 | 67            | 3.0         |
| 1000 | C51SC801108K***# | 86             | 225 | 32 | 76            | 2.6         |



**C51**  
Round Aluminum Case

**DC Link Polypropylene Capacitors**

**Dimensions and Ratings**



| Cap. |                  | <b>1000 VDC</b> |     |    |               |             |
|------|------------------|-----------------|-----|----|---------------|-------------|
| μF   | Part #           | Dimension (mm)  |     |    | Irms Max<br>A | ESR<br>(mΩ) |
|      |                  | D               | H   | P  |               |             |
| 270  | C51SC102277K***# | 76              | 120 | 32 | 37            | 5.0         |
| 350  | C51SC102357K***# | 86              | 120 | 32 | 43            | 4.3         |
| 500  | C51SC102507K***# | 76              | 225 | 32 | 63            | 3.3         |
| 680  | C51SC102687K***# | 86              | 225 | 32 | 73            | 3.0         |

| Cap. |                  | <b>1200 VDC</b> |     |    |               |             |
|------|------------------|-----------------|-----|----|---------------|-------------|
| μF   | Part #           | Dimension (mm)  |     |    | Irms Max<br>A | ESR<br>(mΩ) |
|      |                  | D               | H   | P  |               |             |
| 200  | C51SC122207K***# | 76              | 120 | 32 | 35            | 5.5         |
| 250  | C51SC122257K***# | 86              | 120 | 32 | 41            | 4.9         |
| 370  | C51SC122377K***# | 76              | 225 | 32 | 61            | 3.5         |
| 470  | C51SC122477K***# | 86              | 225 | 32 | 70            | 3.0         |

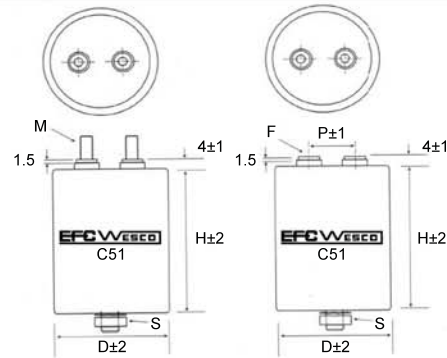
| Cap. |                  | <b>1400 VDC</b> |     |    |               |             |
|------|------------------|-----------------|-----|----|---------------|-------------|
| μF   | Part #           | Dimension (mm)  |     |    | Irms Max<br>A | ESR<br>(mΩ) |
|      |                  | D               | H   | P  |               |             |
| 140  | C51SC142147K***# | 76              | 120 | 32 | 33            | 6.5         |
| 180  | C51SC142147K***# | 86              | 120 | 32 | 38            | 5.5         |
| 270  | C51SC142147K***# | 76              | 225 | 32 | 58            | 4.5         |
| 350  | C51SC142147K***# | 86              | 225 | 32 | 66            | 3.5         |



**C51**  
Round Aluminum Case

**DC Link Polypropylene Capacitors**

**Dimensions and Ratings**



| Cap. | <b>1600 VDC</b>  |                |     |    |                |             |
|------|------------------|----------------|-----|----|----------------|-------------|
| μF   | Part #           | Dimension (mm) |     |    | I rms Max<br>A | ESR<br>(mΩ) |
|      |                  | D              | H   | P  |                |             |
| 100  | C51SC162107K***# | 76             | 120 | 32 | 30             | 7.5         |
| 140  | C51SC162147K***# | 86             | 120 | 32 | 36             | 6.0         |
| 200  | C51SC162207K***# | 76             | 225 | 32 | 54             | 4.5         |
| 270  | C51SC162277K***# | 86             | 225 | 32 | 64             | 3.8         |

| Cap. | <b>1800 VDC</b>  |                |     |    |                |             |
|------|------------------|----------------|-----|----|----------------|-------------|
| μF   | Part #           | Dimension (mm) |     |    | I rms Max<br>A | ESR<br>(mΩ) |
|      |                  | D              | H   | P  |                |             |
| 80   | C51SC182806K***# | 76             | 120 | 32 | 29             | 8.5         |
| 110  | C51SC182117K***# | 86             | 120 | 32 | 35             | 6.5         |
| 160  | C51SC182167K***# | 76             | 225 | 32 | 52             | 4.8         |
| 200  | C51SC182207K***# | 86             | 225 | 32 | 60             | 4.1         |

| Cap. | <b>2000 VDC</b>  |                |     |    |                |             |
|------|------------------|----------------|-----|----|----------------|-------------|
| μF   | Part #           | Dimension (mm) |     |    | I rms Max<br>A | ESR<br>(mΩ) |
|      |                  | D              | H   | P  |                |             |
| 130  | C51SC202137K***# | 76             | 225 | 32 | 36             | 10.5        |
| 170  | C51SC202177K***# | 86             | 225 | 32 | 42             | 8.5         |



## Series C52 DC-Link Polypropylene Capacitors

**Features:** Flame retardant to UL94, extended metalized film, dry connection, aluminum case with resin sealing, copper nut or screw terminals, high stability, low ESR and ESL, self healing.

**Applications:** DC-link and filter for UPS, SMPSs, inverter, welding machine power.

### Specifications

**1) Operating Temperature**

-40°C to 85°C.

**2) Capacitance**

80µF to 4000µF.

**3) Rated Voltage**

500 VDC to 2000 VDC.

**4) Tolerance**

±5% or ±10%.

**5) Test Voltage Between Terminals and Case**

3000V 50Hz 60s, 25°C±5°C.

**6) Test Voltage Between Terminals**

1.5 rated DC voltage 10s 25°C±5°C.

**7) Dissipation Factor**

0.2% max at 25°C±5°C, 100Hz

**8) Insulation Resistance**

5000 MΩ•µF min, AT 100 VDC, 25°C±

**9) Life Expectancy**

200000h at rated DC voltage and 70°C.

**10) Reference Standards**

GB/T 17702, IEC 61071

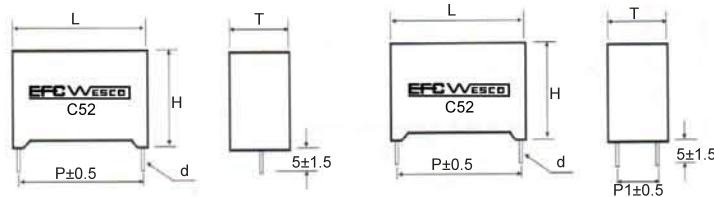
#### Surge Voltage Limits

| Surge Voltage (VDC) | Max Duration                       |
|---------------------|------------------------------------|
| 1.1 x Rated         | 30% of service period              |
| 1.15 x Rated        | 30 min./day                        |
| 1.2 x Rated         | 5 min./day                         |
| 1.3 x Rated         | 1 min./day                         |
| 1.5 x Rated         | 100mS/day; no more than 1000 times |

# C52

## Radial Lead Case

# DC Link Polypropylene Capacitors



## Dimensions and Ratings

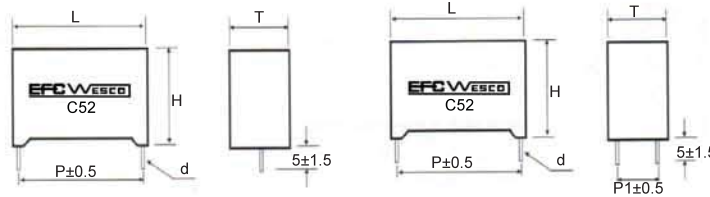
| Cap. | 500 VDC          |                |      |      |      |      |     |               |               |             |
|------|------------------|----------------|------|------|------|------|-----|---------------|---------------|-------------|
| μF   | Part #           | Dimension (mm) |      |      |      |      |     | dv/dt<br>V/μs | Irms Max<br>A | ESR<br>(mΩ) |
|      |                  | L              | T    | H    | P    | P1   | d   |               |               |             |
| 16   | C52SB501166KL**# | 42.5           | 24.5 | 27.5 | 37.5 |      | 1.2 | 20            | 10.0          | 7.0         |
| 25   | C52SB501256KL**# | 42.5           | 28.0 | 37.0 | 37.5 |      | 1.2 | 20            | 12.0          | 4.2         |
| 25   | C52SB501256KL**# | 42.5           | 28.0 | 37.0 | 37.5 | 10.0 | 1.2 | 20            | 14.0          | 4.2         |
| 35   | C52SB501356KL**# | 42.5           | 30.0 | 45.0 | 37.5 |      | 1.2 | 20            | 12.0          | 3.0         |
| 35   | C52SB501356KL**# | 42.5           | 30.0 | 45.0 | 37.5 | 20.0 | 1.2 | 20            | 17.0          | 2.5         |
| 40   | C52SB501406KL**# | 42.5           | 33.0 | 45.0 | 37.5 |      | 1.2 | 20            | 12.0          | 2.8         |
| 40   | C52SB501406KL**# | 42.5           | 33.0 | 45.0 | 37.5 | 20.0 | 1.2 | 20            | 19.0          | 2.4         |
| 50   | C52SB501506KL**# | 57.5           | 30.0 | 45.0 | 37.5 |      | 1.2 | 13            | 12.0          | 4.0         |
| 50   | C52SB501506KL**# | 57.5           | 30.0 | 45.0 | 52.5 | 20.0 | 1.2 | 13            | 17.0          | 3.5         |
| 65   | C52SB501656KL**# | 57.5           | 35.0 | 50.0 | 52.5 |      | 1.2 | 13            | 12.0          | 3.3         |
| 65   | C52SB501656KL**# | 58.5           | 35.0 | 50.0 | 52.5 | 20.0 | 1.2 | 13            | 20.0          | 2.7         |
| 90   | C52SB501906KL**# | 57.5           | 42.5 | 50.0 | 52.5 | 20.0 | 1.2 | 13            | 22.0          | 2.5         |

| Cap. | 700 VDC          |                |      |      |      |      |     |               |               |             |
|------|------------------|----------------|------|------|------|------|-----|---------------|---------------|-------------|
| μF   | Part #           | Dimension (mm) |      |      |      |      |     | dv/dt<br>V/μs | Irms Max<br>A | ESR<br>(mΩ) |
|      |                  | L              | T    | H    | P    | P1   | d   |               |               |             |
| 15   | C52SB701156KL**# | 42.5           | 24.5 | 27.5 | 37.5 |      | 1.2 | 22            | 10.0          | 8.0         |
| 22   | C52SB701226KL**# | 42.5           | 28.0 | 37.0 | 37.5 |      | 1.2 | 22            | 12.0          | 5.5         |
| 22   | C52SB701226KL**# | 42.5           | 28.0 | 37.0 | 37.5 | 10.0 | 1.2 | 22            | 12.0          | 5.2         |
| 30   | C52SB701306KL**# | 42.5           | 30.0 | 45.0 | 37.5 |      | 1.2 | 22            | 12.0          | 4.0         |
| 30   | C52SB701306KL**# | 42.5           | 30.0 | 45.0 | 37.5 | 20.0 | 1.2 | 22            | 15.0          | 3.5         |
| 35   | C52SB701356KL**# | 42.5           | 33.0 | 45.0 | 37.5 |      | 1.2 | 22            | 12.0          | 3.5         |
| 35   | C52SB701356KL**# | 42.5           | 33.0 | 45.0 | 37.5 | 20.0 | 1.2 | 20            | 18.0          | 3.1         |
| 45   | C52SB701456KL**# | 57.5           | 30.0 | 45.0 | 52.5 |      | 1.2 | 15            | 12.0          | 5.3         |
| 45   | C52SB701456KL**# | 57.5           | 30.0 | 45.0 | 52.5 | 20.0 | 1.2 | 15            | 20.0          | 3.5         |
| 55   | C52SB701556KL**# | 57.5           | 35.0 | 50.0 | 52.5 |      | 1.2 | 15            | 12.0          | 4.3         |
| 55   | C52SB701556KL**# | 57.5           | 35.0 | 50.0 | 52.5 | 20.0 | 1.2 | 15            | 22.0          | 2.8         |

# C52

## Radial Lead Case

# DC Link Polypropylene Capacitors



## Dimensions and Ratings

| Cap. | 900 VDC          |                |      |      |      |      |     |               |               |             |
|------|------------------|----------------|------|------|------|------|-----|---------------|---------------|-------------|
| μF   | Part #           | Dimension (mm) |      |      |      |      |     | dv/dt<br>V/μs | Irms Max<br>A | ESR<br>(mΩ) |
|      |                  | L              | T    | H    | P    | P1   | d   |               |               |             |
| 10   | C52SB901106KL**# | 42.5           | 24.5 | 27.5 | 37.5 |      | 1.2 | 30            | 8.0           | 9.5         |
| 15   | C52SB901156KL**# | 42.5           | 28.0 | 37.0 | 37.5 |      | 1.2 | 30            | 11.0          | 6.5         |
| 15   | C52SB901156KL**# | 42.5           | 28.0 | 37.0 | 37.5 | 10.0 | 1.2 | 30            | 11.0          | 6.0         |
| 20   | C52SB901206KL**# | 42.5           | 30.0 | 45.0 | 37.5 |      | 1.2 | 30            | 12.0          | 5.0         |
| 20   | C52SB901206KL**# | 42.5           | 30.0 | 45.0 | 37.5 | 20.0 | 1.2 | 30            | 13.0          | 4.5         |
| 30   | C52SB901306KL**# | 57.5           | 30.0 | 45.0 | 52.5 |      | 1.2 | 20            | 12.0          | 6.3         |
| 30   | C52SB901306KL**# | 57.5           | 30.0 | 45.0 | 52.5 | 20.0 | 1.2 | 20            | 16.0          | 5.9         |
| 40   | C52SB901406KL**# | 57.5           | 35.0 | 50.0 | 52.5 |      | 1.2 | 20            | 12.0          | 4.9         |
| 40   | C52SB901406KL**# | 57.5           | 35.0 | 50.0 | 52.5 | 20.0 | 1.2 | 20            | 20.0          | 4.5         |
| 55   | C52SB901556KL**# | 57.5           | 42.5 | 56.0 | 52.5 | 20.0 | 1.2 | 20            | 22.0          | 3.1         |

| Cap. | 1200 VDC         |                |      |      |      |      |     |               |               |             |
|------|------------------|----------------|------|------|------|------|-----|---------------|---------------|-------------|
| μF   | Part #           | Dimension (mm) |      |      |      |      |     | dv/dt<br>V/μs | Irms Max<br>A | ESR<br>(mΩ) |
|      |                  | L              | T    | H    | P    | P1   | d   |               |               |             |
| 5    | C52SB122505KL**# | 42.5           | 24.5 | 27.5 | 37.5 |      | 1.2 | 40            | 6.0           | 13.0        |
| 10   | C52SB122106KL**# | 42.5           | 28.0 | 37.0 | 37.5 |      | 1.2 | 40            | 10.0          | 8.0         |
| 10   | C52SB122106KL**# | 42.5           | 28.0 | 37.0 | 37.5 | 10.0 | 1.2 | 40            | 10.0          | 7.5         |
| 15   | C52SB122156KL**# | 42.5           | 33.0 | 45.0 | 37.5 |      | 1.2 | 40            | 12.0          | 5.5         |
| 15   | C52SB122156KL**# | 42.5           | 33.0 | 45.0 | 37.5 |      | 1.2 | 40            | 12.0          | 5.5         |
| 22   | C52SB122226KL**# | 57.5           | 30.0 | 45.0 | 52.5 |      | 1.2 | 27            | 12.0          | 7.0         |
| 22   | C52SB122226KL**# | 57.5           | 30.0 | 45.0 | 52.5 | 20.0 | 1.2 | 27            | 14.0          | 6.5         |
| 25   | C52SB122256KL**# | 57.5           | 35.0 | 50.0 | 52.5 |      | 1.2 | 27            | 12.0          | 6.3         |
| 25   | C52SB122256KL**# | 57.5           | 35.0 | 50.0 | 52.5 | 20.0 | 1.2 | 27            | 16.0          | 6.0         |
| 40   | C52SB122406KL**# | 57.5           | 42.5 | 56.0 | 52.5 | 20.0 | 1.2 | 27            | 20.0          | 3.5         |





## Series C53 DC-Link Polypropylene Capacitors

**Features:** Flame retardant to UL94, extended metalized film, dry connection, polyester tape wrapping with resin sealing, copper nut terminals, high stability, high frequency, low inductance, self healing.

**Applications:** DC-link and coupling/filtering for UPS, SMPs, inverter, welding machine power.

### Specifications

**1) Operating Temperature**

-40°C to 85°C.

**2) Capacitance**

15 $\mu$ F to 300 $\mu$ F.

**3) Rated Voltage**

600 VDC to 1200 VDC.

**4) Tolerance**

$\pm$ 5% or  $\pm$ 10%.

**5) Test Voltage Between Terminals and Case**

3000V 50Hz 60s, 25°C $\pm$ 5°C.

**6) Test Voltage Between Terminals**

1.5 rated DC voltage 10s 25°C $\pm$ 5°C.

**7) Dissipation Factor**

0.2% max at 25°C $\pm$ 5°C, 1kHz

**8) Insulation Resistance**

5000 M $\Omega$ · $\mu$ F min, at 100 VDC, 25°C $\pm$ 5°C, 60s

**9) Life Expectancy**

200000h at rated DC voltage and 70°C.

**10) Reference Standards**

GB/T 17702, IEC 61071

#### Surge Voltage Limits

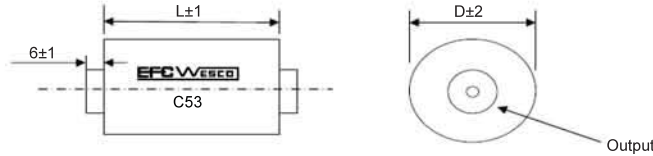
| Surge Voltage (VDC) | Max Duration                       |
|---------------------|------------------------------------|
| 1.1 x Rated         | 30% of service period              |
| 1.15 x Rated        | 30 min./day                        |
| 1.2 x Rated         | 5 min./day                         |
| 1.3 x Rated         | 1 min./day                         |
| 1.5 x Rated         | 100mS/day; no more than 1000 times |



# C53

## Tape Wrapped Case

# DC Link Polypropylene Capacitors



## Dimensions and Ratings

| Cap. | <b>600 VDC</b>   |                |    |               |               |             |        |
|------|------------------|----------------|----|---------------|---------------|-------------|--------|
| μF   | Part #           | Dimension (mm) |    | dv/dt<br>V/μs | Irms Max<br>A | ESR<br>(mΩ) | Output |
|      |                  | L              | D  |               |               |             |        |
| 30   | C53SC601306KF**# | 40             | 45 | 45            | 27            | 1.8         | M6     |
| 50   | C53SC601506KF**# | 50             | 50 | 32            | 30            | 2.0         | M6     |
| 80   | C53SC601806KF**# | 50             | 62 | 32            | 40            | 1.5         | M6     |
| 100  | C53SC601107KF**# | 60             | 60 | 22            | 35            | 2.0         | M6     |
| 150  | C53SC601157KF**# | 60             | 75 | 22            | 48            | 1.5         | M8     |
| 200  | C53SC601207KF**# | 110            | 60 | 10            | 35            | 3.0         | M6     |
| 300  | C53SC601307KF**# | 110            | 72 | 10            | 48            | 2.1         | M8     |

| Cap. | <b>800 VDC</b>   |                |    |               |               |             |        |
|------|------------------|----------------|----|---------------|---------------|-------------|--------|
| μF   | Part #           | Dimension (mm) |    | dv/dt<br>V/μs | Irms Max<br>A | ESR<br>(mΩ) | Output |
|      |                  | L              | D  |               |               |             |        |
| 20   | C53SC801206KF**# | 40             | 44 | 65            | 25            | 2.0         | M6     |
| 30   | C53SC801306KF**# | 50             | 46 | 40            | 25            | 2.4         | M6     |
| 40   | C53SC801406KF**# | 50             | 52 | 40            | 30            | 2.0         | M6     |
| 50   | C53SC801506KF**# | 50             | 59 | 40            | 35            | 1.6         | M6     |
| 100  | C53SC801107KF**# | 60             | 72 | 30            | 45            | 1.8         | M8     |
| 150  | C53SC801157KF**# | 110            | 62 | 14            | 35            | 3.0         | M6     |
| 200  | C53SC801207KF**# | 110            | 71 | 14            | 45            | 2.5         | M8     |

| Cap. | <b>1200 VDC</b>  |                |    |               |               |             |        |
|------|------------------|----------------|----|---------------|---------------|-------------|--------|
| μF   | Part #           | Dimension (mm) |    | dv/dt<br>V/μs | Irms Max<br>A | ESR<br>(mΩ) | Output |
|      |                  | L              | D  |               |               |             |        |
| 15   | C53SC122156KF**# | 40             | 51 | 80            | 23            | 2.2         | M6     |
| 25   | C53SC122256KF**# | 50             | 54 | 55            | 25            | 2.4         | M6     |
| 40   | C53SC122406KF**# | 50             | 69 | 55            | 35            | 1.8         | M6     |
| 50   | C53SC122506KF**# | 60             | 69 | 40            | 33            | 2.3         | M6     |
| 80   | C53SC122806KF**# | 60             | 86 | 40            | 45            | 1.8         | M8     |
| 100  | C53SC122107KF**# | 110            | 66 | 20            | 30            | 4.0         | M6     |
| 150  | C53SC122157KF**# | 110            | 81 | 20            | 45            | 3.0         | M8     |



# Series C54

## DC-Link Polypropylene Capacitors

**Features:** Flame retardant to UL94, extended metalized film, dry connection, aluminum case with resin sealing, tinned copper nut terminals, large capacity, small volume, high ripple current capability, low temperature rise, good heat dissipation, long service life.

**Applications:** Induction heating equipment in the DC bus bar support, smoothing filter circuit.

### Specifications

**1) Operating Temperature**

-40°C to 85°C.

**2) Capacitance**

15 $\mu$ F to 300 $\mu$ F.

**3) Rated Voltage**

600 VDC to 1200 VDC.

**4) Tolerance**

$\pm$ 5% or  $\pm$ 10%.

**5) Test Voltage Between Terminals and Case**

3000V 50Hz 60s, 25°C $\pm$ 5°C.

**6) Test Voltage Between Terminals**

1.5 rated DC voltage 10s 25°C $\pm$ 5°C.

**7) Dissipation Factor**

0.2% max at 25°C $\pm$ 5°C, 1kHz

**8) Insulation Resistance**

5000 M $\Omega$ · $\mu$ F min, at 100 VDC, 25°C $\pm$ 5°C, 60s

**9) Life Expectancy**

200000h at rated DC voltage and 70°C.

**10) Reference Standards**

GB/T 17702, IEC 61071

### Surge Voltage Limits

| Surge Voltage (VDC) | Max Duration                       |
|---------------------|------------------------------------|
| 1.1 x Rated         | 30% of service period              |
| 1.15 x Rated        | 30 min./day                        |
| 1.2 x Rated         | 5 min./day                         |
| 1.3 x Rated         | 1 min./day                         |
| 1.5 x Rated         | 100mS/day; no more than 1000 times |

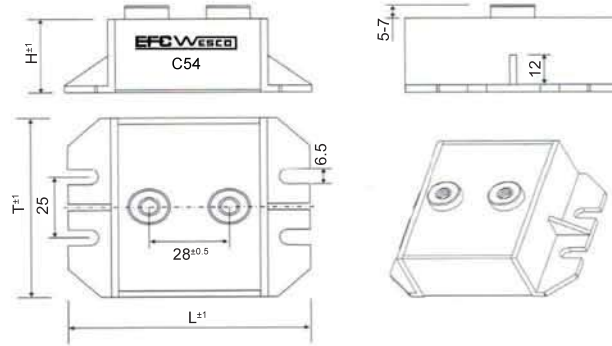


Please consult factory for special requirements, including non-standard values and sizes

# C54

Rectangular Aluminum Case

## DC Link Polypropylene Capacitors



### Dimensions and Ratings

| Cap. | 800 VDC          |       |                |    |    |      |            |                        |               |
|------|------------------|-------|----------------|----|----|------|------------|------------------------|---------------|
| μF   | Part #           | kW    | Dimension (mm) |    |    | P mm | dv/dt V/μs | I <sub>rms</sub> Max A | Stud Mounting |
|      |                  |       | L              | D  | H  |      |            |                        |               |
| 20   | C54SR801206KF**# | 12~20 | 93             | 65 | 30 | 28   | 50         | 50                     | 2XM6          |
| 30   | C54SR801306KF**# | 20~30 | 93             | 75 | 30 | 28   | 50         | 60                     | 2XM6          |
| 45   | C54SR801456KF**# | 30~35 | 93             | 75 | 45 | 28   | 50         | 75                     | 2XM6          |



# Series C55

## DC-Link Polypropylene Capacitors

**Features:** Flame retardant to UL94, extended metalized film, dry connection, plastic casing, tinned copper nut terminals, stable performance, high reliability, small volume, convenient installation.

**Applications:** Induction heating equipment in the DC bus bar support, smoothing filter circuit.

### Specifications

**1) Operating Temperature**

-40°C to 85°C.

**2) Capacitance**

2 x 10  $\mu$ F; 2 x 16 $\mu$ F; 2 x 30 $\mu$ F.

**3) Rated Voltage**

400 VDC.

**4) Tolerance**

$\pm$ 5%.

**5) Surge Voltage**

650 VDC 100ms.

**6) Overvoltage Operating Time**

1.1UN.

**7) Test Voltage Between Terminals**

650V (DC) 60s

**8) Test Voltage Between Terminals and Case**

2000VAC 10s.

**9) Dissipation Factor**

0.1% max at 25°C $\pm$ 5°C

**10) Insulation Resistance**

5000 M $\Omega$ · $\mu$ F min, at 100 VDC, 25°C $\pm$ 5°C, 60s.

**11) Effective Current ( $\Delta$ T<25°C)**

20A; 30A; 40A.

**12) Equivalent Series Resistance**

<2.3m $\Omega$  ; <1.8m $\Omega$  ; <1.6m $\Omega$ .

**13) Stray Inductance**

$\leq$ 20nH

**14) Life Expectancy**

200000h at rated DC voltage and 70°C.

**15) Reference Standards**

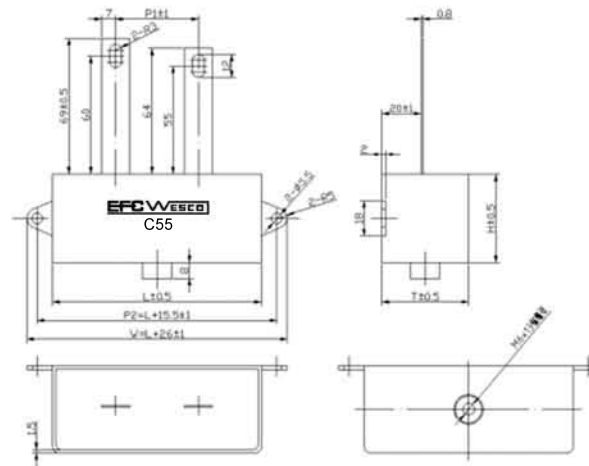
GB/T 17702, IEC 61071

### Surge Voltage Limits

| Surge Voltage (VDC) | Max Duration                       |
|---------------------|------------------------------------|
| 1.1 x Rated         | 30% of service period              |
| 1.15 x Rated        | 30 min./day                        |
| 1.2 x Rated         | 5 min./day                         |
| 1.3 x Rated         | 1 min./day                         |
| 1.5 x Rated         | 100mS/day; no more than 1000 times |

# C55 Plastic Case

# DC Link Polypropylene Capacitors



## Dimensions and Ratings

| Cap.   | <b>400 VDC</b>  |                |      |      |      |       |                   |
|--------|-----------------|----------------|------|------|------|-------|-------------------|
| μF     | Part #          | Dimension (mm) |      |      | (mm) |       | Lead Type         |
|        |                 | L              | W    | H    | P1   | P2    |                   |
| 2 x 10 | C55SB4012x10KT# | 76.0           | 31.0 | 35.5 | 26.7 | 91.5  | Tinned Copper Lug |
| 2 x 16 | C55SB4012x16KT# | 105.5          | 43.0 | 32.0 | 42.0 | 120.5 | Tinned Copper Lug |
| 2 x 30 | C55SB4012x30KT# | 105.5          | 43.5 | 45.0 | 28.0 | 120.5 | Tinned Copper Lug |



# Series C56 DC-Link Polypropylene Capacitors

**Features:** Flame retardant to UL94, double metal and metal film inner series structure, aluminum case with resin sealing, tinned copper nut terminals, large capacity, small volume, high ripple current capability, low temperature rise, good heat dissipation, long service life.

**Applications:** Induction heating equipment in the DC bus bar support, smoothing filter circuit.

## Specifications

**1) Operating Temperature**

-40°C to 85°C.

**2) Capacitance**

0.4  $\mu$ F to 1.1  $\mu$ F.

**3) Rated Voltage**

3000 VDC.

**4) Tolerance**

$\pm$ 5%  $\pm$ 10%

**5) Withstand Voltage**

1.5 rated DC voltage 60s

**6) Dissipation Factor**

0.1% max at 25°C $\pm$ 5°C, 1kHz

**9) Withstand Strike Current Ability**

dv/dt > 30V/ $\mu$ s

**10) Effective Current**

30A to 80A

**11) Stray Inductance**

$\leq$ 30nH

**12) Life Expectancy**

200000h at UN and 70°C

**15) Reference Standards**

GB/T 17702, IEC 61071

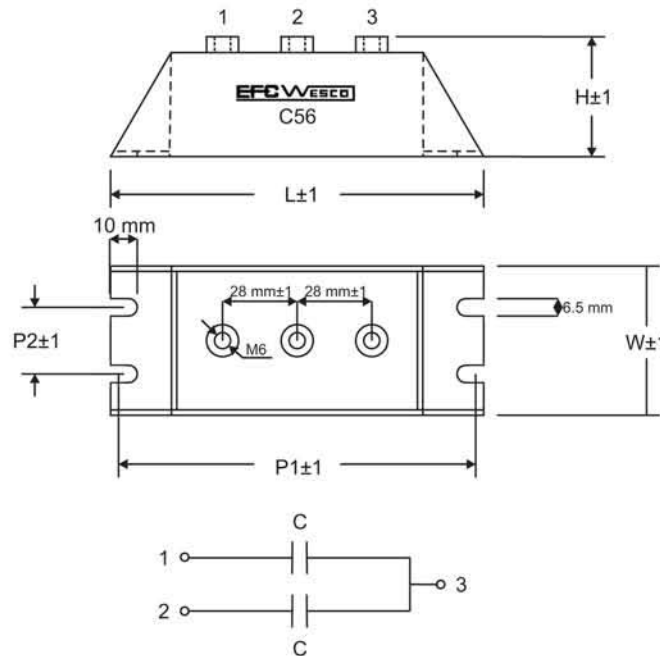
### Surge Voltage Limits

| Surge Voltage (VDC) | Max Duration                       |
|---------------------|------------------------------------|
| 1.1 x Rated         | 30% of service period              |
| 1.15 x Rated        | 30 min./day                        |
| 1.2 x Rated         | 5 min./day                         |
| 1.3 x Rated         | 1 min./day                         |
| 1.5 x Rated         | 100mS/day; no more than 1000 times |

# C56

## Dual Capacitor Rectangular Aluminum Case

# DC Link Polypropylene Capacitors



## Dimensions and Ratings

| Cap. | <b>3000 VDC</b> |                |    |    |     |    |               |
|------|-----------------|----------------|----|----|-----|----|---------------|
| μF   | Part #          | Dimension (mm) |    |    |     |    | Stud Mounting |
|      |                 | L              | W  | H  | P1  | P2 |               |
| 0.4  | C56SR302404F**# | 140            | 56 | 45 | 126 | 25 | 3xM6          |
| 0.5  | C56SR302504F**# | 155            | 65 | 45 | 141 | 25 | 3xM6          |
| 0.6  | C56SR302604F**# | 155            | 65 | 45 | 141 | 25 | 3xM6          |
| 0.7  | C56SR302704F**# | 175            | 74 | 45 | 161 | 25 | 3xM6          |
| 0.8  | C56SR302804F**# | 175            | 74 | 45 | 161 | 25 | 3xM6          |
| 0.88 | C56SR302884F**# | 155            | 65 | 45 | 141 | 25 | 3xM6          |
| 0.9  | C56SR302904F**# | 180            | 85 | 45 | 171 | 25 | 3xM6          |
| 1.0  | C56SR302105F**# | 175            | 74 | 45 | 161 | 25 | 3xM6          |
| 1.1  | C56SR302115F**# | 175            | 74 | 45 | 161 | 25 | 3xM6          |





## Series C58 DC-Link Polypropylene Capacitors

**Features:** Flame retardant to UL94, extended metallized film, dry connection, round plastic shell, tinned copper nut (or bolt), high current, low inductance, high stability, self healing.

**Applications:** Coupling/filtering for UPS, SMPSs, inverter, welding machine power.

### Specifications

**1) Operating Temperature**

-40°C to 85°C.

**2) Capacitance**

25  $\mu$ F to 240  $\mu$ F.

**3) Rated Voltage**

700 VDC to 1800 VDC

**4) Tolerance**

$\pm$ 5%  $\pm$ 10%

**5) Test Voltage Between Terminals**

1.6 X rated voltage 10s 25°C  $\pm$  5°C.

**6) Dissipation Factor**

20 X 10 to 0.2% max at 25°C  $\pm$  5°C, 1 kHz.

**7) Insulation Resistance**

5000 M $\Omega$ \* $\mu$ F min, at 100 VDC, 25°C  $\pm$  5°C,

**8) Life Expectancy**

200000h at DC voltage and 70°C

### Surge Voltage Limits

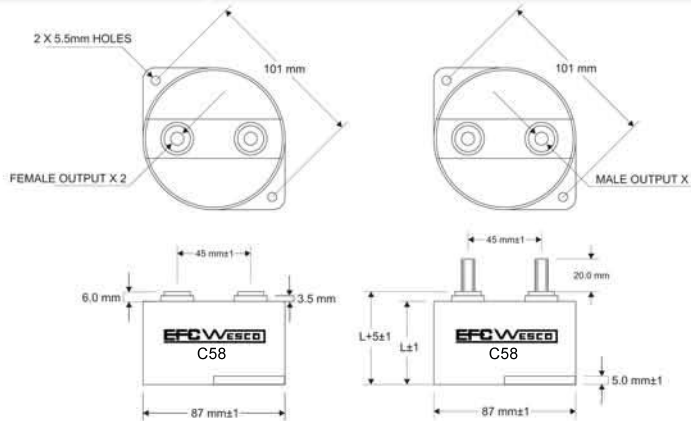
| Surge Voltage (VDC) | Max Duration                       |
|---------------------|------------------------------------|
| 1.1 x Rated         | 30% of service period              |
| 1.15 x Rated        | 30 min./day                        |
| 1.2 x Rated         | 5 min./day                         |
| 1.3 x Rated         | 1 min./day                         |
| 1.5 x Rated         | 100mS/day; no more than 1000 times |



Please consult factory for special requirements, including non-standard values and sizes

# C58 Round Plastic Case

## DC Link Polypropylene Capacitors



### Dimensions and Ratings

| Cap. | 1250 VDC          |                |    |                       |                          |          |          |        |
|------|-------------------|----------------|----|-----------------------|--------------------------|----------|----------|--------|
| µF   | Part #            | Dimension (mm) |    | I <sub>peak</sub> (A) | I <sub>rms</sub> max (A) | ESR (mΩ) | ESL (nH) | Output |
|      |                   | L              | D  |                       |                          |          |          |        |
| 50   | C58SB1252506K***# | 51             | 87 | 3200                  | 65                       | 0.75     | < 30     | M6     |
| 75   | C58SB1252756K***# | 66             | 87 | 3100                  | 45                       | 1.5      | < 40     | M6     |

| Cap. | 1450 VDC          |                |    |                       |                          |          |          |        |
|------|-------------------|----------------|----|-----------------------|--------------------------|----------|----------|--------|
| µF   | Part #            | Dimension (mm) |    | I <sub>peak</sub> (A) | I <sub>rms</sub> max (A) | ESR (mΩ) | ESL (nH) | Output |
|      |                   | L              | D  |                       |                          |          |          |        |
| 40   | C58SB1452406K***# | 51             | 87 | 2900                  | 60                       | 0.8      | < 30     | M8     |
| 50   | C58SB1452506K***# | 66             | 87 | 2400                  | 45                       | 1.6      | < 40     | M6     |

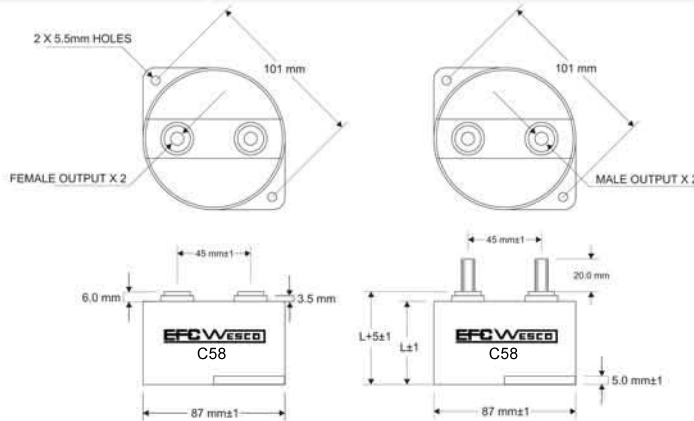
| Cap. | 1800 VDC         |                |    |                       |                          |          |          |        |
|------|------------------|----------------|----|-----------------------|--------------------------|----------|----------|--------|
| µF   | Part #           | Dimension (mm) |    | I <sub>peak</sub> (A) | I <sub>rms</sub> max (A) | ESR (mΩ) | ESL (nH) | Output |
|      |                  | L              | D  |                       |                          |          |          |        |
| 25   | C58SB182256K***# | 51             | 87 | 2300                  | 55                       | 1.0      | < 30     | M8     |
| 35   | C58SB182356K***# | 66             | 87 | 2100                  | 40                       | 2.0      | < 40     | M8     |



Please consult factory for special requirements, including non-standard values and sizes

# C58 Round Plastic Case

## DC Link Polypropylene Capacitors



### Dimensions and Ratings

| Cap. |                  | <b>700 VDC</b> |    |                       |                          |          |          |        |
|------|------------------|----------------|----|-----------------------|--------------------------|----------|----------|--------|
| µF   | Part #           | Dimension (mm) |    | I <sub>peak</sub> (A) | I <sub>rms max</sub> (A) | ESR (mΩ) | ESL (nH) | Output |
|      |                  | L              | D  |                       |                          |          |          |        |
| 150  | C58SB701157K***# | 51             | 87 | 5300                  | 85                       | 0.4      | < 30     | M6     |
| 240  | C58SB701247K***# | 66             | 87 | 5600                  | 60                       | 1.0      | < 40     | M6     |

| Cap. |                  | <b>900 VDC</b> |    |                       |                          |          |          |        |
|------|------------------|----------------|----|-----------------------|--------------------------|----------|----------|--------|
| µF   | Part #           | Dimension (mm) |    | I <sub>peak</sub> (A) | I <sub>rms max</sub> (A) | ESR (mΩ) | ESL (nH) | Output |
|      |                  | L              | D  |                       |                          |          |          |        |
| 100  | C58SB901107K***# | 51             | 87 | 4500                  | 75                       | 0.6      | < 30     | M6     |
| 150  | C58SB901157K***# | 66             | 87 | 4400                  | 55                       | 1.1      | < 40     | M6     |

| Cap. |                  | <b>1000 VDC</b> |    |                       |                          |          |          |        |
|------|------------------|-----------------|----|-----------------------|--------------------------|----------|----------|--------|
| µF   | Part #           | Dimension (mm)  |    | I <sub>peak</sub> (A) | I <sub>rms max</sub> (A) | ESR (mΩ) | ESL (nH) | Output |
|      |                  | L               | D  |                       |                          |          |          |        |
| 80   | C58SB102806K***# | 51              | 87 | 4000                  | 70                       | 0.6      | < 30     | M6     |

| Cap. |                  | <b>1100 VDC</b> |    |                       |                          |          |          |        |
|------|------------------|-----------------|----|-----------------------|--------------------------|----------|----------|--------|
| µF   | Part #           | Dimension (mm)  |    | I <sub>peak</sub> (A) | I <sub>rms max</sub> (A) | ESR (mΩ) | ESL (nH) | Output |
|      |                  | L               | D  |                       |                          |          |          |        |
| 70   | C58SB112706K***# | 51              | 87 | 3800                  | 70                       | 0.65     | < 30     | M6     |
| 100  | C58SB112107K***# | 66              | 87 | 3600                  | 50                       | 1.3      | < 40     | M6     |