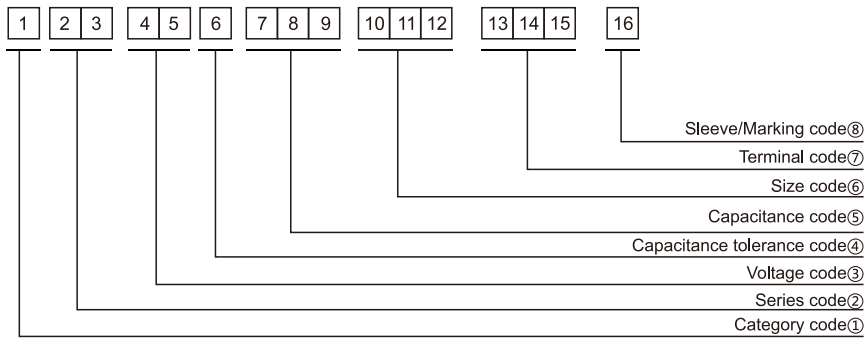


## Part Numbering System



① Category code

| Type                   | Code |
|------------------------|------|
|                        | 1    |
| Electrolytic Capacitor | E    |
| Conductive Polymer     | S    |

③ Voltage code

| WV<br>(V <sub>dc</sub> ) | Code |   |
|--------------------------|------|---|
|                          | 4    | 5 |
| 2.5                      | 0    | E |
| 3                        | 0    | D |
| 4                        | 0    | G |
| 6.3                      | 0    | J |
| 6.8                      | 0    | C |
| 7                        | 0    | Q |
| 7.5                      | 0    | A |
| 10                       | 1    | A |
| 12                       | 1    | T |
| 16                       | 1    | C |
| 25                       | 1    | E |
| 35                       | 1    | V |
| 40                       | 1    | G |
| 50                       | 1    | H |
| 63                       | 1    | J |
| 80                       | 1    | B |
| 100                      | 1    | K |
| 120                      | 2    | B |
| 160                      | 2    | C |
| 180                      | 2    | L |
| 200                      | 2    | D |
| 220                      | 2    | N |
| 250                      | 2    | E |
| 315                      | 2    | F |
| 350                      | 2    | V |
| 380                      | 2    | P |
| 400                      | 2    | G |
| 420                      | 2    | T |
| 450                      | 2    | W |
| 500                      | 2    | H |
| 550                      | 2    | J |
| 600                      | 2    | K |

④ Capacitance tolerance code

| Tol.<br>(%) | Code |
|-------------|------|
| 6           |      |
| -10~+10     | K    |
| -20~+20     | M    |
| -10~+30     | Q    |
| -10~+20     | V    |
| 0~+20       | A    |
| -5~+20      | C    |
| -10~-20     | B    |
| -5~+5       | D    |
| 0~+10       | E    |
| -5~-20      | F    |
| -15~+5      | N    |

⑤ Capacitance code

| Cap<br>(μF) | Code |   |   |
|-------------|------|---|---|
|             | 7    | 8 | 9 |
| 0.10        | R    | 1 | 0 |
| 0.22        | R    | 2 | 2 |
| 0.33        | R    | 3 | 3 |
| 0.47        | R    | 4 | 7 |
| 0.68        | R    | 6 | 8 |
| 1           | 0    | 1 | 0 |
| 2.2         | 2    | R | 2 |
| 3.3         | 3    | R | 3 |
| 4.7         | 4    | R | 7 |
| 6.8         | 6    | R | 8 |
| 10          | 1    | 0 | 0 |
| 22          | 2    | 2 | 0 |
| 33          | 3    | 3 | 0 |
| 47          | 4    | 7 | 0 |
| 68          | 6    | 8 | 0 |
| 100         | 1    | 0 | 1 |
| 220         | 2    | 2 | 1 |
| 330         | 3    | 3 | 1 |
| 470         | 4    | 7 | 1 |
| 680         | 6    | 8 | 1 |
| 1000        | 1    | 0 | 2 |
| 2200        | 2    | 2 | 2 |
| 3300        | 3    | 3 | 2 |
| 4700        | 4    | 7 | 2 |
| 6800        | 6    | 8 | 2 |
| 10000       | 1    | 0 | 3 |
| 22000       | 2    | 2 | 3 |
| 33000       | 3    | 3 | 3 |
| 68000       | 6    | 8 | 3 |

② Series code

| Series name | Code |   |
|-------------|------|---|
|             | 2    | 3 |
| WH          | W    | H |
| CD11GE      | G    | E |
| CD11GES     | G    | X |
| CD11GAS     | G    | W |
| CD11GHS     | G    | S |
| NR          | N    | R |
| PZ          | P    | Z |

⑥ Size code

| ΦD<br>(mm) | Code |
|------------|------|
| 4          | C    |
| 5          | D    |
| 6.3        | E    |
| 8          | F    |
| 10         | G    |
| 11         | H    |
| 12         | J    |
| 12.5       | W    |
| 13         | K    |
| 14         | X    |
| 16         | L    |
| 18         | M    |
| 19         | Z    |
| 20         | N    |
| 22         | O    |
| 25         | P    |
| 30         | Q    |
| 35         | R    |
| 40         | Y    |
| 51.6       | S    |
| 64.3       | T    |
| 76.9       | U    |
| 91         | V    |
| 100        | A    |

| L<br>(mm) | Code |    |
|-----------|------|----|
|           | 11   | 12 |
| 5         | 0    | 5  |
| 7         | 0    | 7  |
| 11        | 1    | 1  |
| 12        | 1    | 2  |
| 16        | 1    | 6  |
| 20        | 2    | 0  |
| 25        | 2    | 5  |
| 30        | 3    | 0  |
| 35        | 3    | 5  |
| 40        | 4    | 0  |
| 46        | 4    | 6  |
| 50        | 5    | 0  |
| 60        | 6    | 0  |
| 80        | 8    | 0  |
| 100       | A    | 0  |
| 115       | B    | 5  |
| 120       | C    | 0  |
| 130       | D    | 0  |
| 140       | E    | 0  |
| 160       | G    | 0  |
| 200       | K    | 0  |
| 220       | M    | 0  |
| 236       | N    | 6  |
| 250       | P    | 0  |

⑦ Terminal code

| Specification                         | Code | Size |    |
|---------------------------------------|------|------|----|
|                                       | 13   | 14   | 15 |
| Bulk packing                          | O    | -    | -  |
| Taping (SMD Type)                     | D    | 0    | 0  |
| Φ4~8 Taping F=5.0mm                   | P    | 5    | 0  |
| Φ10~12.5 Taping F=5.0mm               | B    | 5    | 0  |
| Lead Cut L=3.5mm                      | C    | 3    | 5  |
| Lead Cut L=11.0mm                     | C    | B    | 0  |
| Lead Forming & Cut L=4.5mm            | F    | -    | -  |
| Kink & Cut L=4.5mm                    | J    | -    | -  |
| Snap-in type Terminal 4.0mm in length | K    | -    | -  |
| Three Terminals                       | T    | -    | -  |
| Ring clip mounting standard design    | A    | 0    | 0  |
| Ring clip mounting special design     | S    | -    | -  |

⑧ Sleeve/Marking code

| Sleeve/Marking | Code |
|----------------|------|
| 16             |      |
| PVC            | C    |
| PET            | T    |
| Dark blue      | B    |
| Bright red     | R    |
| Sky-blue       | S    |
| Light blue     | T    |
| Pink           | Z    |
| Black          | H    |
| Purple-blue    | V    |
| Red            | O    |

# Lead Forming Taping Specifications

Fig.1 code: X

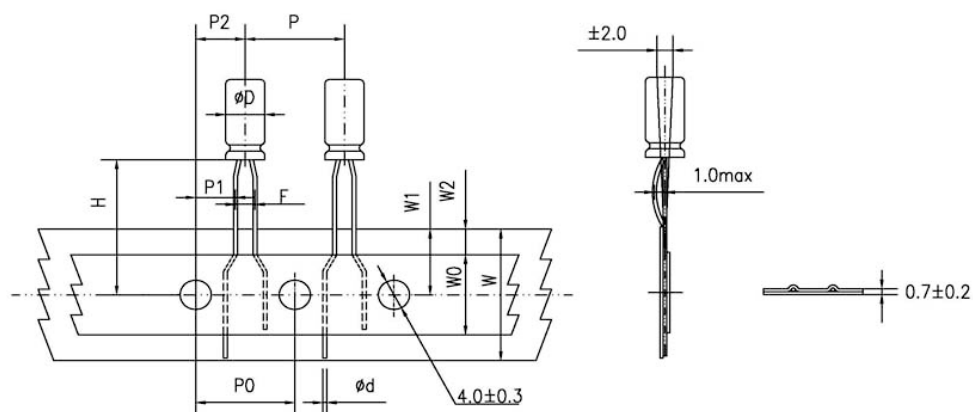


Fig.2 code: B

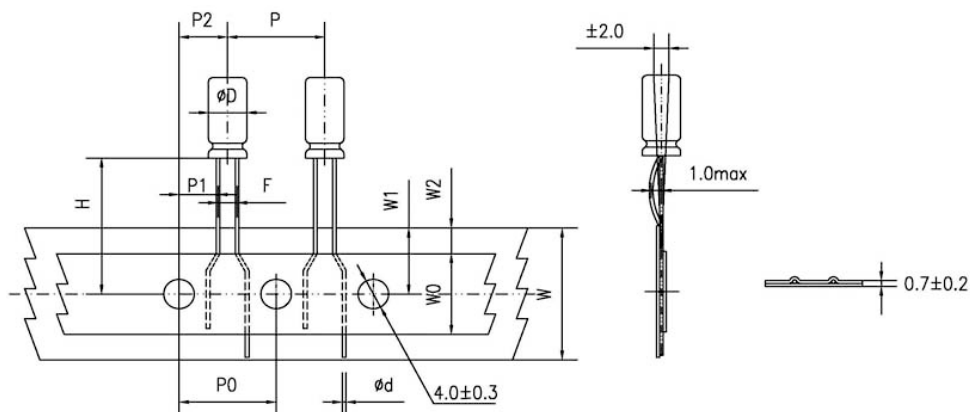


Fig.3 code: B

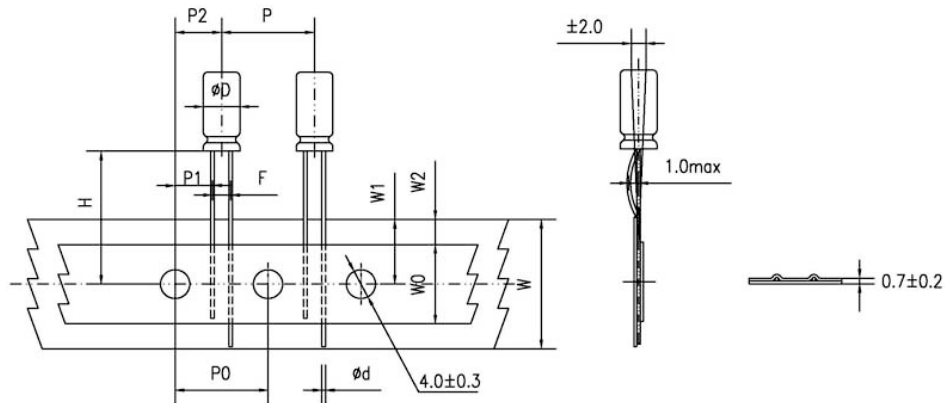
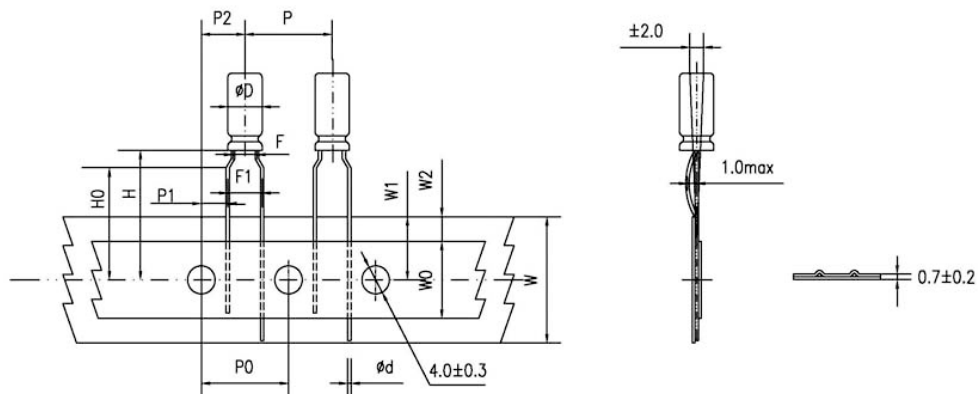


Fig.4 code: P



## Lead Forming

Specification Fig.1 &amp; Fig.2 &amp; Fig.3

| Items                                         | Symbol | Case size  |     |            |      |      |      |       |                |                  |                                   |              | Tolerance |                                            |
|-----------------------------------------------|--------|------------|-----|------------|------|------|------|-------|----------------|------------------|-----------------------------------|--------------|-----------|--------------------------------------------|
|                                               |        | 4*5<br>4*7 |     | 5*5<br>5*7 |      | 5*11 |      | 6.3*5 | 6.3*7<br>6.3*9 | 6.3*11<br>6.3*12 | 8*5/7<br>8*9/11<br>8*11.5<br>8*12 | 8*16<br>8*20 |           | 10*9/12<br>10*12.5<br>10*13/16<br>10*20/25 |
| Pin Code                                      |        | X          | B   | X          | B    | X    | B    | B     | B              | B                | B                                 | B            | B         |                                            |
| Lead wire diameter                            | Φd     | 0.45       |     | 0.45       |      | 0.5  |      | 0.45  | 0.5            | 0.5              | 0.45/0.5                          | 0.6          | 0.6       | ±0.05                                      |
| Pitch of body                                 | P      | 12.7       |     | 12.7       |      | 12.7 |      | 12.7  | 12.7           | 12.7             | 12.7                              | 12.7         | 12.7      | ±1.0                                       |
| Feed hole pitch                               | P0     | 12.7       |     | 12.7       |      | 12.7 |      | 12.7  | 12.7           | 12.7             | 12.7                              | 12.7         | 12.7      | ±0.2                                       |
| Distance from hole center to lead             | P1     | 5.1        | 5.6 | 5.1        | 5.35 | 5.1  | 5.35 | 5.1   | 5.1            | 5.1              | 4.6                               | 4.6          | 3.85      | ±0.7                                       |
| Distance from feed hole center to body center | P2     | 6.35       |     | 6.35       |      | 6.35 |      | 6.35  | 6.35           | 6.35             | 6.35                              | 6.35         | 6.35      | ±1.0                                       |
| Lead-to-lead distance                         | F      | 2.5        | 1.5 | 2.5        | 2.0  | 2.5  | 2.0  | 2.5   | 2.5            | 2.5              | 3.5                               | 3.5          | 5.0       | ±0.5                                       |
| Height of body from tape center               | H      | 18.5       |     | 18.5       |      | 18.5 |      | 18.5  | 18.5           | 18.5             | 18.5                              | 18.5         | 18.5      | ±0.75                                      |
| Base tape width                               | W      | 18.0       |     | 18.0       |      | 18.0 |      | 18.0  | 18.0           | 18.0             | 18.0                              | 18.0         | 18.0      | ±0.5                                       |
| Adhesive tape width                           | W0     | 6.0        |     | 6.0        |      | 6.0  |      | 6.0   | 6.0            | 8.0              | 8.0                               | 8.0          | 11.0      | min                                        |
| Hole position                                 | W1     | 9.0        |     | 9.0        |      | 9.0  |      | 9.0   | 9.0            | 9.0              | 9.0                               | 9.0          | 9.0       | +0.75<br>-0.5                              |
| Hole down tape position                       | W2     | 3.0        |     | 3.0        |      | 3.0  |      | 3.0   | 3.0            | 3.0              | 3.0                               | 3.0          | 3.0       | max                                        |

Specification Fig.4

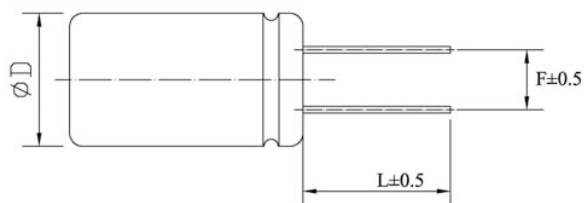
| Items                                         | Symbol | Case size  |      |      |      |       |                |                  |                              |              | Tolerance     |
|-----------------------------------------------|--------|------------|------|------|------|-------|----------------|------------------|------------------------------|--------------|---------------|
|                                               |        | 4*5<br>4*7 | 5*5  | 5*7  | 5*11 | 6.3*5 | 6.3*7<br>6.3*9 | 6.3*11<br>6.3*12 | 8*5/7<br>8*9/11<br>8*11.5/12 | 8*16<br>8*20 |               |
| Pin Code                                      |        | P          | P    | P    | P    | P     | P              | P                | P                            | P            |               |
| Lead wire diameter                            | Φd     | 0.45       | 0.45 | 0.45 | 0.5  | 0.45  | 0.5            | 0.5              | 0.45/0.5                     | 0.6          | ±0.05         |
| Pitch of body                                 | P      | 12.7       | 12.7 | 12.7 | 12.7 | 12.7  | 12.7           | 12.7             | 12.7                         | 12.7         | ±1.0          |
| Feed hole pitch                               | P0     | 12.7       | 12.7 | 12.7 | 12.7 | 12.7  | 12.7           | 12.7             | 12.7                         | 12.7         | ±0.2          |
| Distance from hole center to lead             | P1     | 3.85       | 3.85 | 3.85 | 3.85 | 3.85  | 3.85           | 3.85             | 3.85                         | 3.85         | ±0.7          |
| Distance from feed hole center to body center | P2     | 6.35       | 6.35 | 6.35 | 6.35 | 6.35  | 6.35           | 6.35             | 6.35                         | 6.35         | ±1.0          |
| Lead-to-lead distance                         | F      | 1.5        | 2.0  | 2.0  | 2.0  | 2.5   | 2.5            | 2.5              | 3.5                          | 3.5          | ±0.5          |
| Lead to lead distance                         | F1     | 5.0        | 5.0  | 5.0  | 5.0  | 5.0   | 5.0            | 5.0              | 5.0                          | 5.0          | +0.8<br>-0.2  |
| Height of body from tape center               | H      | 18.5       | 18.5 | 18.5 | 18.5 | 18.5  | 18.5           | 18.5             | 18.5                         | 18.5         | ±0.75         |
| Lead wire clinch height                       | H0     | 16.0       | 16.0 | 16.0 | 16.0 | 16.0  | 16.0           | 16.0             | 16.0                         | 16.0         | ±0.5          |
| Base tape width                               | W      | 18.0       | 18.0 | 18.0 | 18.0 | 18.0  | 18.0           | 18.0             | 18.0                         | 18.0         | ±0.5          |
| Adhesive tape width                           | W0     | 6.0        | 6.0  | 6.0  | 6.0  | 6.0   | 6.0            | 8.0              | 8.0                          | 8.0          | min           |
| Hole position                                 | W1     | 9.0        | 9.0  | 9.0  | 9.0  | 9.0   | 9.0            | 9.0              | 9.0                          | 9.0          | +0.75<br>-0.5 |
| Hole down tape position                       | W2     | 3.0        | 3.0  | 3.0  | 3.0  | 3.0   | 3.0            | 3.0              | 3.0                          | 3.0          | max           |

## Lead Forming

### Lead Forming & Cut

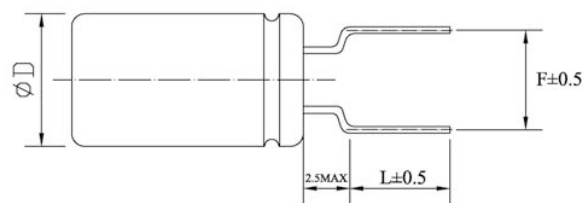
Code:C

RANGE:  $\Phi 4 \sim \Phi 18$



Code:F

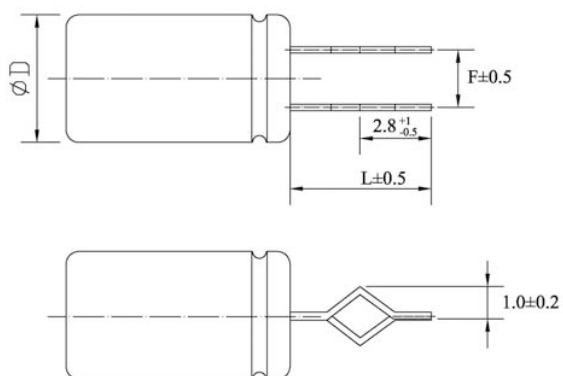
RANGE:  $\Phi 4 \sim \Phi 8$



| $\Phi D$ | F   | L        | $\Phi D$ | F   | L                  |
|----------|-----|----------|----------|-----|--------------------|
| 4        | 1.5 | 3.0~12.0 | 4        | 5.0 | 3.5, 4.5, 5.0, 7.0 |
| 5        | 2.0 | 3.0~12.0 | 5        | 5.0 | 3.5, 4.5, 5.0, 7.0 |
| 6.3      | 2.5 | 3.0~12.0 | 6.3      | 5.0 | 3.5, 4.5, 5.0, 7.0 |
| 8        | 3.5 | 3.0~12.0 | 8        | 5.0 | 3.5, 4.5, 5.0, 7.0 |
| 10       | 5.0 | 3.0~12.0 | -        | -   | -                  |
| 12.5     | 5.0 | 3.0~12.0 | -        | -   | -                  |
| 16       | 7.5 | 3.0~12.0 | -        | -   | -                  |
| 18       | 7.5 | 3.0~12.0 | -        | -   | -                  |

Code:J

RANGE:  $\Phi 10 \sim \Phi 18$



| $\Phi D$ | F   | L             |
|----------|-----|---------------|
| 10       | 5.0 | 4.0, 4.5, 5.0 |
| 12.5     | 5.0 | 4.0, 4.5, 5.0 |
| 16       | 7.5 | 4.0, 4.5, 5.0 |
| 18       | 7.5 | 4.0, 4.5, 5.0 |

## CD11GM series

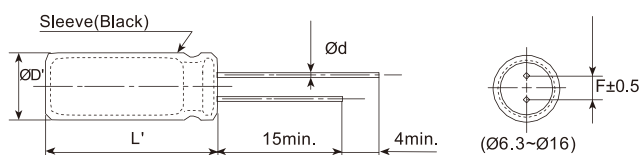
- Endurance: +105°C 3,000 hours
- Economical type, miniaturized
- RoHS Compliant



## SPECIFICATIONS

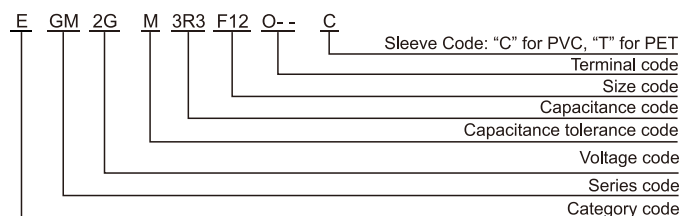
| Items                                                  | Characteristics                                                                                                                                                                                                            |                                      |      |      |      |                  |
|--------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|------|------|------|------------------|
| Category Temperature Range                             | -40~+105°C (160~400 V <sub>dc</sub> )                                                                                                                                                                                      |                                      |      |      |      |                  |
| Rated Voltage Range                                    | 160~400 V <sub>dc</sub>                                                                                                                                                                                                    |                                      |      |      |      |                  |
| Capacitance Tolerance                                  | ±20%(M) (at 20°C, 120Hz)                                                                                                                                                                                                   |                                      |      |      |      |                  |
| Leakage Current                                        | I≤0.02CV+25μA (160~400 V <sub>dc</sub> )<br>Where, I:Max.leakage current (μA), C:Nominal capacitance (μF), V: Rated voltage (V) (at 20°C after 2 minutes)                                                                  |                                      |      |      |      |                  |
| Dissipation Factor (tanδ)                              | Rated Voltage(V <sub>dc</sub> )                                                                                                                                                                                            | 160                                  | 200  | 250  | 400  | (at 20°C, 120Hz) |
|                                                        | tanδ (max.)                                                                                                                                                                                                                | 0.15                                 | 0.15 | 0.15 | 0.20 |                  |
| Low Temperature Characteristics (Max. Impedance Ratio) | Rated Voltage(V <sub>dc</sub> )                                                                                                                                                                                            | 160                                  | 200  | 250  | 400  | (at 120Hz)       |
|                                                        | Z(-25°C)/Z(+20°C)                                                                                                                                                                                                          | 3                                    | 3    | 3    | 5    |                  |
|                                                        | Z(-40°C)/Z(+20°C)                                                                                                                                                                                                          | 6                                    | 6    | 6    | 6    |                  |
| Endurance                                              | The specifications listed below shall be met when the capacitors are restored to 20°C after DC voltage plus rated ripple current is applied for 3,000 hours at 105°C, the peak voltage shall not exceed the rated voltage. |                                      |      |      |      |                  |
|                                                        | Capacitance Change                                                                                                                                                                                                         | ≤±20% of the initial value           |      |      |      |                  |
|                                                        | D.F. (tanδ)                                                                                                                                                                                                                | ≤200% of the initial specified value |      |      |      |                  |
|                                                        | Leakage Current                                                                                                                                                                                                            | ≤The initial specified value         |      |      |      |                  |
| Shelf Life                                             | The following specifications shall be satisfied when the capacitors are restored to 20°C after leaving them under no load at 105°C for 1,000 hours.                                                                        |                                      |      |      |      |                  |
|                                                        | Capacitance Change                                                                                                                                                                                                         | ≤±20% of the initial value           |      |      |      |                  |
|                                                        | D.F. (tanδ)                                                                                                                                                                                                                | ≤200% of the initial specified value |      |      |      |                  |
|                                                        | Leakage Current                                                                                                                                                                                                            | ≤500% of the initial specified value |      |      |      |                  |

## DIMENSIONS[mm]



|     |            |     |     |      |     |     |
|-----|------------|-----|-----|------|-----|-----|
| ØD  | 6.3        | 8   | 10  | 12.5 | 13  | 16  |
| Ød  | 0.5        | 0.5 | 0.6 | 0.6  | 0.6 | 0.8 |
| F   | 2.5        | 3.5 | 5.0 | 5.0  | 5.0 | 7.5 |
| ØD' | ØD+0.5max. |     |     |      |     |     |
| L'  | L+2max.    |     |     |      |     |     |

## PART NUMBERING SYSTEM



## RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

| Freq.(Hz)                       | 120  | 1k   | 10k  | 100k |
|---------------------------------|------|------|------|------|
| Rated voltage(V <sub>dc</sub> ) |      |      |      |      |
| 160~400                         | 0.50 | 0.80 | 0.90 | 1.00 |

# CD11GM series

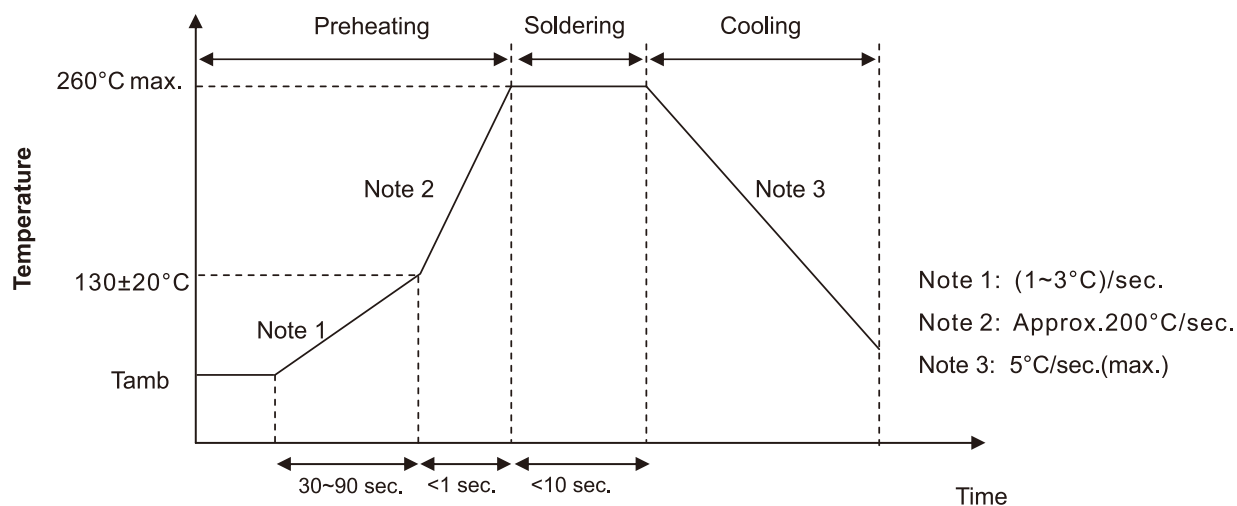
■ STANDARD RATINGS

| WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Size<br>ΦD×L(mm) | tanδ | Rated ripple current<br>(mA <sub>rms</sub> /105°C,100kHz) |
|--------------------------|-------------|------------------|------|-----------------------------------------------------------|
| 160(2C)                  | 4.7         | 6.3*7            | 0.15 | 52                                                        |
|                          | 5.6         | 6.3*9            | 0.15 | 58                                                        |
|                          | 6.8         | 6.3*12           | 0.15 | 70                                                        |
|                          | 8.2         | 6.3*12           | 0.15 | 100                                                       |
|                          | 10          | 6.3*12           | 0.15 | 135                                                       |
|                          |             | 8*9              | 0.15 | 135                                                       |
|                          |             | 8*12             | 0.15 | 145                                                       |
|                          | 15          | 8*12             | 0.15 | 162                                                       |
|                          |             | 8*16             | 0.15 | 180                                                       |
|                          |             | 10*9             | 0.15 | 160                                                       |
|                          | 22          | 8*16             | 0.15 | 245                                                       |
|                          |             | 10*12            | 0.15 | 260                                                       |
|                          | 33          | 10*16            | 0.15 | 320                                                       |
|                          | 47          | 10*16            | 0.15 | 365                                                       |
|                          |             | 10*20            | 0.15 | 400                                                       |
|                          | 56          | 10*20            | 0.15 | 450                                                       |
|                          | 68          | 12.5*16          | 0.15 | 490                                                       |
|                          |             | 12.5*20          | 0.15 | 530                                                       |
| 200(2D)                  | 4.7         | 6.3*9            | 0.15 | 52                                                        |
|                          | 5.6         | 6.3*12           | 0.15 | 62                                                        |
|                          | 6.8         | 6.3*12           | 0.15 | 76                                                        |
|                          | 8.2         | 8*9              | 0.15 | 90                                                        |
|                          |             | 8*12             | 0.15 | 95                                                        |
|                          | 10          | 8*9              | 0.15 | 130                                                       |
|                          |             | 8*12             | 0.15 | 145                                                       |
|                          |             | 10*9             | 0.15 | 145                                                       |
|                          | 15          | 8*12             | 0.15 | 170                                                       |
|                          |             | 8*16             | 0.15 | 185                                                       |
|                          | 22          | 8*16             | 0.15 | 255                                                       |
|                          | 33          | 10*16            | 0.15 | 330                                                       |
|                          | 47          | 10*20            | 0.15 | 420                                                       |
|                          | 56          | 12.5*20          | 0.15 | 500                                                       |

| WV<br>(V <sub>dc</sub> ) | Cap<br>(μF) | Size<br>ΦD×L(mm) | tanδ | Rated ripple current<br>(mA <sub>rms</sub> /105°C,100kHz) |
|--------------------------|-------------|------------------|------|-----------------------------------------------------------|
| 250(2E)                  | 4.7         | 6.3*9            | 0.15 | 80                                                        |
|                          |             | 6.3*12           | 0.15 | 85                                                        |
|                          |             | 8*9              | 0.15 | 80                                                        |
|                          |             | 8*12             | 0.15 | 90                                                        |
|                          | 6.8         | 8*9              | 0.15 | 92                                                        |
|                          |             | 8*12             | 0.15 | 96                                                        |
|                          |             | 8*9              | 0.15 | 96                                                        |
|                          | 8.2         | 8*12             | 0.15 | 100                                                       |
|                          |             | 10*9             | 0.15 | 100                                                       |
|                          |             | 8*12             | 0.15 | 150                                                       |
|                          | 10          | 10*9             | 0.15 | 150                                                       |
|                          |             | 8*16             | 0.15 | 195                                                       |
|                          | 15          | 10*16            | 0.15 | 280                                                       |
|                          | 22          | 10*16            | 0.15 | 360                                                       |
|                          | 33          | 10*20            | 0.15 | 360                                                       |
|                          |             | 12.5*16          | 0.15 | 430                                                       |
|                          | 47          | 12.5*16          | 0.15 | 455                                                       |
|                          |             | 12.5*20          | 0.15 | 455                                                       |
| 400(2G)                  | 1           | 6.3*9            | 0.20 | 35                                                        |
|                          | 1.5         | 6.3*9            | 0.20 | 40                                                        |
|                          | 1.8         | 6.3*12           | 0.20 | 49                                                        |
|                          | 2.2         | 6.3*12           | 0.20 | 60                                                        |
|                          |             | 8*9              | 0.20 | 60                                                        |
|                          | 3.3         | 8*9              | 0.20 | 70                                                        |
|                          |             | 8*12             | 0.20 | 75                                                        |
|                          | 4.7         | 8*12             | 0.20 | 95                                                        |
|                          |             | 10*9             | 0.20 | 95                                                        |
|                          |             | 8*12             | 0.20 | 117                                                       |
|                          | 6.8         | 8*16             | 0.20 | 130                                                       |
|                          |             | 10*12            | 0.20 | 130                                                       |
|                          |             | 8*16             | 0.20 | 170                                                       |
|                          | 10          | 10*12            | 0.20 | 170                                                       |
|                          |             | 10*16            | 0.20 | 195                                                       |
|                          |             | 10*16            | 0.20 | 230                                                       |
|                          | 15          | 10*16            | 0.20 | 345                                                       |
|                          | 22          | 12.5*20          | 0.20 | 445                                                       |
|                          | 33          | 13*20            | 0.20 | 650                                                       |
|                          | 47          | 16*25            | 0.20 | 650                                                       |

## Solering Recommendation

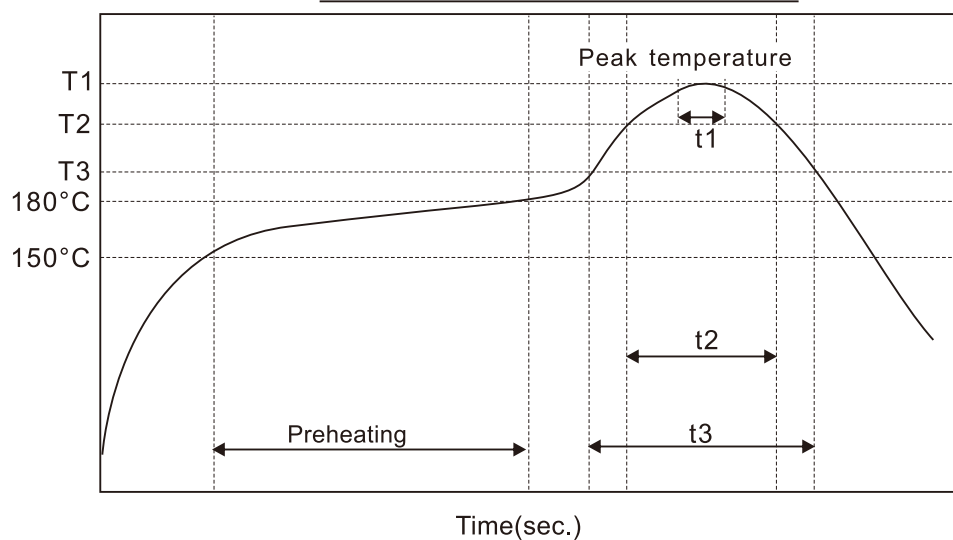
### ■ Flow Soldering(Radial Lead Type)



### ■ Reflow Soldering

- (For Polymer SMD Type)

### Recommended Reflow Profile

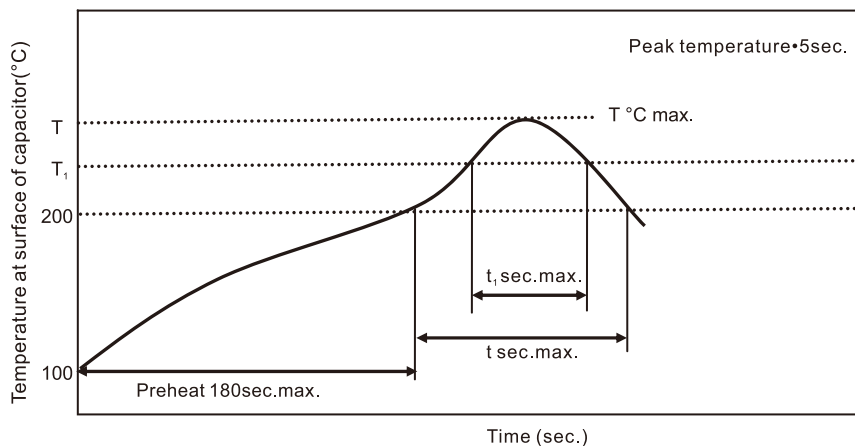


| Item        | Preheating                      | T1(°C)     | T2(°C) | T3(°C) | t1(sec.)  | t2(sec.)  | t3(sec.)  | Reflow cycle |
|-------------|---------------------------------|------------|--------|--------|-----------|-----------|-----------|--------------|
| Condition 1 | 150°C to 180°C<br>Within 90sec. | $\leq 260$ | 230    | 200    | $\leq 10$ | $\leq 40$ | $\leq 60$ | 1            |
| Condition 2 |                                 | $\leq 250$ | 230    | 200    | $\leq 10$ | $\leq 40$ | $\leq 60$ | 2            |

• (For Liquid SMD Type)

Case size:  $\Phi 6.3$ ~ $\Phi 10$ mm:

- Temperature at surface of capacitor shall not exceed  $T^{\circ}\text{C}$ .
- The duration for over  $200^{\circ}\text{C}$  temperature and  $T_1^{\circ}\text{C}$  at surface of capacitor shall not exceed  $t$  and  $t_1$  seconds, respectively.
- Preheat shall be done at  $100^{\circ}\text{C}$  to  $200^{\circ}\text{C}$  and for Maximum 180 seconds.

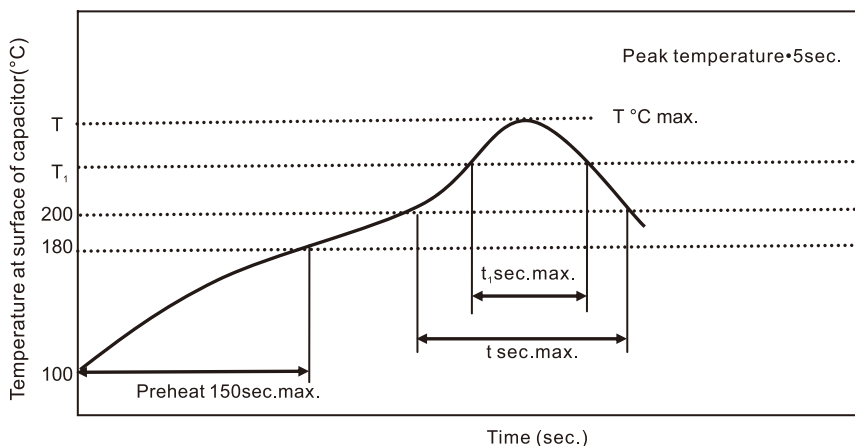


| Case size<br>(mm) | $T(^{\circ}\text{C})$<br>① | $T_1(^{\circ}\text{C})$ | $t(\text{sec.})$<br>② | $t_1(\text{sec.})$<br>③ | Reflow<br>cycle |
|-------------------|----------------------------|-------------------------|-----------------------|-------------------------|-----------------|
| $\Phi 6.3$        | 250                        | 230                     | 90                    | 40                      | 1               |
| $\Phi 8$          | 240                        | 230                     | 90                    | 30                      | 1               |
| $\Phi 10$         | 235                        | 230                     | 60                    | 30                      | 1               |

- ① Peak temperature
- ② The duration over  $200^{\circ}\text{C}$  (max.)
- ③ The duration over  $T_1^{\circ}\text{C}$
- Please contact us if capacitors are subject to the conditions other than the allowable range of reflow.

Case size:  $\Phi 12.5$ ~ $\Phi 18$ mm:

- Temperature at surface of capacitor shall not exceed  $T^{\circ}\text{C}$ .
- The duration for over  $200^{\circ}\text{C}$  temperature and  $T_1^{\circ}\text{C}$  at surface of capacitor shall not exceed  $t$  and  $t_1$  seconds, respectively.
- Preheat shall be done at  $100^{\circ}\text{C}$  to  $180^{\circ}\text{C}$  and for Maximum 150 seconds.



| Case size<br>(mm)       | $T(^{\circ}\text{C})$<br>① | $T_1(^{\circ}\text{C})$ | $t(\text{sec.})$<br>② | $t_1(\text{sec.})$<br>③ | Reflow<br>cycle |
|-------------------------|----------------------------|-------------------------|-----------------------|-------------------------|-----------------|
| $\Phi 12.5$ ~ $\Phi 18$ | 240                        | 230                     | 60                    | 30                      | 1               |

- ① Peak temperature
- ② The duration over  $200^{\circ}\text{C}$  (max.)
- ③ The duration over  $T_1^{\circ}\text{C}$
- Please contact us if capacitors are subject to the conditions other than the allowable range of reflow.

## X-ON Electronics

Largest Supplier of Electrical and Electronic Components

***Click to view similar products for*** [Aluminium Electrolytic Capacitors - Radial Leaded](#) ***category:***

***Click to view products by*** [Aishi](#) ***manufacturer:***

Other Similar products are found below :

[LXY50VB4.7M-5X11](#) [RFO-100V471MJ7P#](#) [ECE-A1EGE220](#) [1814181](#) [NCD681K10KVY5PF](#) [NEV1000M25EF-BULK](#) [NEV100M35DC](#)  
[NEV100M63DE](#) [NEV220M25DD-BULK](#) [NEV.33M100AA](#) [NEV4700M50HB](#) [NEV.47M100AA](#) [NEVH1.0M250AB](#) [NEVH3.3M250BB](#)  
[NEVH3.3M450CC](#) [KME50VB100M-8X11.5](#) [SG220M1CSA-0407](#) [ES5107M016AE1DA](#) [ESX472M16B](#) [476CKH100MSA](#) [477RZS050M](#)  
[UVX1V101KPA1FA](#) [UVX1V222MHA1CA](#) [KME25VB100M-6.3X11](#) [VTL100S10](#) [VTL470S10](#) [511D336M250EK5D](#) [052687X](#) [ECE-](#)  
[A1CF471](#) [EKXG451ELL820MM30S](#) [686CKR050M](#) [NRE-S560M16V6.3X7TBSTF](#) [ERZA630VHN182UP54N](#) [UPL1A331MPH](#)  
[NEV1000M6.3DE](#) [NEV100M16CB](#) [NEV100M50DD-BULK](#) [NEV2200M16FF](#) [NEV220M50EE](#) [NEV2.2M50AA](#) [NEV330M63EF](#)  
[NEV4700M35HI](#) [NEV4.7M100BA](#) [NEV47M16BA](#) [NEV47M50CB-BULK](#) [NEVH1.0M350AB](#) [NEVH2.2M160AB](#) [NEVH3.3M350BC](#)  
[TER330M50GM](#) [477KXM035MGBWSA](#)