

### Features

- Higher Capacitance in larger case sizes.
- For general purposes series with 85°C 2000 hours.

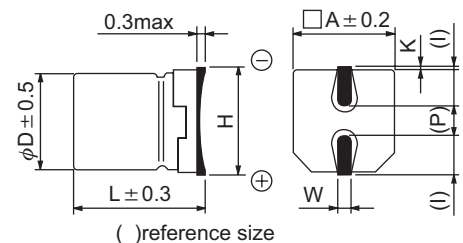


### ● SPECIFICATION

| Item   | Characteristic   |   |      |      |      |      |      |      |      |      |
|--|--|---|------|------|------|------|------|------|------|------|
| Operation Temperature Range                        | -40 ~ +85°C  |   |      |      |      |      |      |      |      |      |
| Rated Working Voltage                              | 4 ~ 100VDC   |   |      |      |      |      |      |      |      |      |
| Capacitance Tolerance (120Hz 20°C)                 | ±20%(M)  |   |      |      |      |      |      |      |      |      |
| Leakage Current<br>(20°C)                          | $I \leq 0.01CV$ or $3 (\mu A)$<br>*Whichever is greater after 2 minutes<br>I : Leakage Current ( $\mu A$ )<br>C : Rated Capacitance ( $\mu F$ )<br>V : Working Voltage (V)         |   |      |      |      |      |      |      |      |      |
| Surge Voltage<br>(20°C)                            | W.V.   | 4                                       | 6.3  | 10   | 16   | 25   | 35   | 50   | 63   | 100  |
|  | S.V.   | 5                                       | 8    | 13   | 20   | 32   | 44   | 63   | 79   | 125  |
| Dissipation Factor (tan $\delta$ )<br>(120Hz 20°C) | Add 0.02 per 1000 $\mu F$ for more then 1000 $\mu F$   |   |      |      |      |      |      |      |      |      |
|  | W.V.   | 4                                       | 6.3  | 10   | 16   | 25   | 35   | 50   | 63   | 100  |
|  | tan $\delta$   | 0.35                                    | 0.28 | 0.24 | 0.20 | 0.16 | 0.14 | 0.12 | 0.12 | 0.10 |
| Low Temperature Stability                          | Impedance ratio at 120Hz   |   |      |      |      |      |      |      |      |      |
|  | Rated Voltage (V)  | 4                                       | 6.3  | 10   | 16   | 25   | 35   | 50   | 63   | 100  |
|  | -25°C / +20°C  | 7                                       | 4    | 3    | 2    | 2    | 2    | 2    | 2    | 2    |
|  | -40°C / +20°C  | 15                                      | 8    | 6    | 4    | 4    | 3    | 3    | 3    | 3    |
| Load Life  | After 2000 hours application of WV at +85°C the capacitor shall meet the following limits.   |   |      |      |      |      |      |      |      |      |
|  | Capacitance Change   | $\leq \pm 20\%$ of initial value        |      |      |      |      |      |      |      |      |
|  | Dissipation Factor   | $\leq 200\%$ of initial specified value |      |      |      |      |      |      |      |      |
|  | Leakage current  | $\leq$ initial specified value          |      |      |      |      |      |      |      |      |
| Shelf Life   | At +85°C, no voltage application after 1000 hours, the capacitor shall meet the limits for load life characteristics. (With voltage treatment)                                     |   |      |      |      |      |      |      |      |      |
| Resistance to Soldering Heat                       | Capacitors placed on a 250°C hot plate for 30 seconds with their electrode terminals facing downward will fulfill the following conditions after being cooled to room temperature. |   |      |      |      |      |      |      |      |      |
|  | Capacitance Change   | $\leq \pm 10\%$ of initial value        |      |      |      |      |      |      |      |      |
|  | Dissipation Factor   | $\leq$ initial specified value          |      |      |      |      |      |      |      |      |
|  | Leakage current  | $\leq$ initial specified value          |      |      |      |      |      |      |      |      |

### ● DIMENSIONS (mm)

| D    | L    | A    | H       | I   | W        | P   | K                                      |
|------|------|------|---------|-----|----------|-----|--|
| 8.0  | 6.2  | 8.3  | 9.5MAX  | 3.4 | 0.65±0.1 | 2.2 | 0.35 <sup>+0.15</sup> <sub>-0.20</sub> |
| 8.0  | 10.2 | 8.3  | 10.0MAX | 3.4 | 0.90±0.2 | 3.1 | 0.70±0.2                               |
| 10.0 | 10.2 | 10.3 | 12.0MAX | 3.5 | 0.90±0.2 | 4.6 | 0.70±0.2                               |



● CASE SIZE & MAX RIPPLE CURRENT

Case size : D x L (mm)  
 Max ripple current : mA(rms) 85°C 120Hz

| μF   | V(Code)<br>Code | Item | 4 (0G)  |      | 6.3 (0J) |      | 10 (1A) |      |
|------|-----------------|------|---------|------|----------|------|---------|------|
|      |                 |      | DxL     | R.C. | DxL      | R.C. | DxL     | R.C. |
| 100  |                 | 101  |         |      |          |      | 8x6.2   | 130  |
| 220  |                 | 221  |         |      | 8x6.2    | 150  | 8x6.2   | 190  |
| 330  |                 | 331  | 8x6.2   | 140  | 8x6.2    | 180  | 8x10.2  | 290  |
| 470  |                 | 471  | 8x10.2  | 210  | 8x10.2   | 260  | 10x10.2 | 420  |
| 1000 |                 | 102  | 8x10.2  | 300  | 10x10.2  | 460  | 10x10.2 | 610  |
| 1500 |                 | 152  | 10x10.2 | 440  | 10x10.2  | 560  |         |      |

| μF  | V(Code)<br>Code | Item | 16 (1C) |      | 25 (1E) |      | 35 (1V) |      |
|-----|-----------------|------|---------|------|---------|------|---------|------|
|     |                 |      | DxL     | R.C. | DxL     | R.C. | DxL     | R.C. |
| 33  |                 | 330  |         |      |         |      | 8x6.2   | 120  |
| 47  |                 | 470  |         |      | 8x6.2   | 100  | 8x6.2   | 140  |
| 100 |                 | 101  | 8x6.2   | 140  | 8x6.2   | 150  | 8x10.2  | 250  |
| 220 |                 | 221  | 8x10.2  | 260  | 8x10.2  | 270  | 10x10.2 | 440  |
| 330 |                 | 331  | 8x10.2  | 310  | 10x10.2 | 450  | 10x10.2 | 540  |
| 470 |                 | 471  | 10x10.2 | 450  |         |      |         |      |

| μF  | V(Code)<br>Code | Item | 50 (1H) |      | 63 (1J) |      | 100 (2A) |      |
|-----|-----------------|------|---------|------|---------|------|----------|------|
|     |                 |      | DxL     | R.C. | DxL     | R.C. | DxL      | R.C. |
| 3.3 |                 | 3R3  |         |      |         |      | 8x6.2    | 41   |
| 4.7 |                 | 4R7  |         |      |         |      | 8x10.2   | 60   |
| 10  |                 | 100  |         |      |         |      | 8x10.2   | 85   |
| 22  |                 | 220  | 8x6.2   | 110  | 8x10.2  | 120  | 10x10.2  | 150  |
| 33  |                 | 330  | 8x6.2   | 130  | 8x10.2  | 140  | 10x10.2  | 180  |
| 47  |                 | 470  | 8x10.2  | 190  | 10x10.2 | 190  |          |      |
| 100 |                 | 101  | 10x10.2 | 310  | 10x10.2 | 280  |          |      |
| 220 |                 | 221  | 10x10.2 | 460  |         |      |          |      |