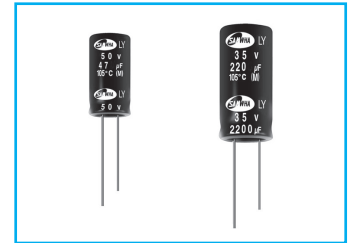


# MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS



## LY Miniature, Long Life, For LED Lighting Series

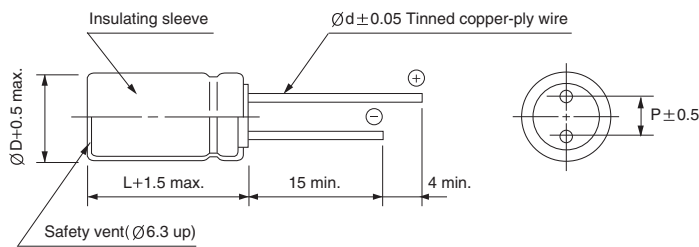
- Miniature, long life
- For LED Lighting
- High reliability withstanding 10000 hours load life at 105°C
- Complied to the RoHS directive



| Item  | Characteristics  |                                       |      |      |      |      |      |      |
|---|--|---------------------------------------|------|------|------|------|------|------|
| Operating temperature range   | -25 ~ +105°C   |                                       |      |      |      |      |      |      |
| Leakage current max.  | I = 0.01CV or 3µA whichever is greater (after 2 minutes)<br>I = 0.03CV or 4µA whichever is greater (after 1 minute)  |                                       |      |      |      |      |      |      |
| Capacitance tolerance   | ±20% at 120Hz, 20°C  |                                       |      |      |      |      |      |      |
| Dissipation factor max. (at 120Hz, 20°C)                                    | WV   | 10                                    | 16   | 25   | 35   | 50   | 63   | 100  |
|   | tanδ   | 0.45                                  | 0.35 | 0.30 | 0.22 | 0.19 | 0.17 | 0.15 |
| Low temperature characteristics (Impedance ratio at 120Hz)                  | WV   | 10                                    | 16   | 25   | 35   | 50   | 63   | 100  |
|   | Z-25°C/Z+20°C  | 8                                     | 6    | 4    | 4    | 3    | 4    | 4    |
| Load life (after application of the rated voltage for 10000 hours at 105°C) | Leakage current  | Less than specified value             |      |      |      |      |      |      |
|   | Capacitance change   | Within ±25% of the initial value      |      |      |      |      |      |      |
|   | tanδ   | Less than 200% of the specified value |      |      |      |      |      |      |
| Shelf life (at 105°C)   | After 1000 hours no load test, leakage current, capacitance and tanδ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4 |                                       |      |      |      |      |      |      |

### DRAWING

Unit : mm



| ØD | 5   | 6.3 | 8   |
|----|-----|-----|-----|
| P  | 2.0 | 2.5 | 3.5 |
| Ød | 0.5 | 0.5 | 0.6 |

### DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

| WV<br>Item<br>µF | 10        |                                      | 16        |                                      | 25        |                                      | 35        |                                      | 50        |                                      | 63        |                                      | 100       |                                      |
|------------------|-----------|--------------------------------------|-----------|--------------------------------------|-----------|--------------------------------------|-----------|--------------------------------------|-----------|--------------------------------------|-----------|--------------------------------------|-----------|--------------------------------------|
|                  | ØD×L (mm) | Ripple current (mA rms) 105°C 100kHz | ØD×L (mm) | Ripple current (mA rms) 105°C 100kHz | ØD×L (mm) | Ripple current (mA rms) 105°C 100kHz | ØD×L (mm) | Ripple current (mA rms) 105°C 100kHz | ØD×L (mm) | Ripple current (mA rms) 105°C 100kHz | ØD×L (mm) | Ripple current (mA rms) 105°C 100kHz | ØD×L (mm) | Ripple current (mA rms) 105°C 100kHz |
| 1.0              |           |                                      |           |                                      |           |                                      |           |                                      | 5×11      | 32                                   |           |                                      |           |                                      |
| 2.2              |           |                                      |           |                                      |           |                                      |           |                                      | 5×11      | 42                                   |           |                                      |           |                                      |
| 3.3              |           |                                      |           |                                      |           |                                      |           |                                      | 5×11      | 84                                   |           |                                      |           |                                      |
| 4.7              |           |                                      |           |                                      |           |                                      |           |                                      | 5×11      | 96                                   |           |                                      |           |                                      |
| 10               |           |                                      |           |                                      |           |                                      |           |                                      | 5×11      | 108                                  |           |                                      | 6.3×11    | 205                                  |
| 22               |           |                                      |           |                                      |           |                                      |           |                                      | 5×11      | 132                                  | 6.3×11    | 265                                  | 8×11.5    | 240                                  |
| 33               |           |                                      |           |                                      | 5×11      | 156                                  | 5×11      | 175                                  | 6.3×11    | 228                                  | 6.3×11    | 265                                  | 8×11.5    | 240                                  |
| 47               |           |                                      | 5×11      | 175                                  | 5×11      | 175                                  | 6.3×11    | 252                                  | 6.3×11    | 228                                  | 8×11.5    | 270                                  |           |                                      |
| 100              | 5×11      | 175                                  | 6.3×11    | 252                                  | 6.3×11    | 252                                  | 8×11.5    | 396                                  | 8×11.5    | 324                                  |           |                                      |           |                                      |
| 220              | 6.3×11    | 252                                  | 8×11.5    | 396                                  | 8×11.5    | 396                                  | 8×15      | 430                                  |           |                                      |           |                                      |           |                                      |
| 330              | 8×11.5    | 396                                  | 8×11.5    | 396                                  |           |                                      |           |                                      |           |                                      |           |                                      |           |                                      |

### FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT

| µF   | Frequency | 120Hz | 1kHz | 10kHz | 50kHz | 100kHz ≤ |
|------|-----------|-------|------|-------|-------|----------|
| ~ 33 |           | 0.42  | 0.70 | 0.90  | 0.95  | 1.00     |
| 47 ~ |           | 0.55  | 0.73 | 0.92  | 0.96  | 1.00     |

MINIATURE TYPES