


CAYA SERIES: 105°C, 2000 Hours

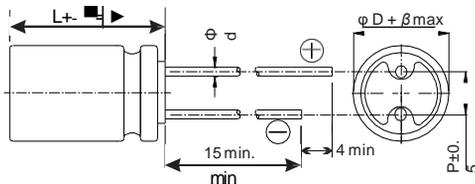
Al. E. CAP.

FEATURES

- 105°C, 2,000 hours assured.
- Ultra Low ESR with large permissible ripple current
- RoHS Compliance

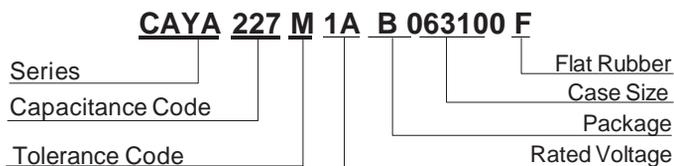
SPECIFICATIONS

| Items | Performance | | | | | | | | | | |
|---|--|-----------------------------------|--------------|--------------------|-----------------------------|-----------------|-----------------------------------|------|-----------------------------------|-----------------|------------------------|
| Operating Temperature | - 55°C ~ + 105°C | | | | | | | | | | |
| Capacitance Tolerance | ±20% (at 120Hz, 20°C) | | | | | | | | | | |
| Leakage Current (at 20°C) | Rated voltage applied, after 2 minutes at 20°C See Standard Ratings | | | | | | | | | | |
| Tan δ (at 120Hz, 20°C) | See Standard Ratings | | | | | | | | | | |
| Load Life Test | <table border="1"> <tr> <td>Test Time</td> <td>2,000 hours</td> </tr> <tr> <td>Capacitance Change</td> <td>Within 20% of initial value</td> </tr> <tr> <td>Tan δ</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table> | Test Time | 2,000 hours | Capacitance Change | Within 20% of initial value | Tan δ | Less than 150% of specified value | ESR | Less than 150% of specified value | Leakage Current | Within specified value |
| | Test Time | 2,000 hours | | | | | | | | | |
| | Capacitance Change | Within 20% of initial value | | | | | | | | | |
| | Tan δ | Less than 150% of specified value | | | | | | | | | |
| | ESR | Less than 150% of specified value | | | | | | | | | |
| Leakage Current | Within specified value | | | | | | | | | | |
| * The above specification shall be satisfied when the capacitors are restored to 20°C after the rated voltage applied for 2,000 hours at 85°C | | | | | | | | | | | |
| Moisture Resistance | <table border="1"> <tr> <td>Test Time</td> <td>1,000 hours</td> </tr> <tr> <td>Capacitance Change</td> <td>Within 20% of initial value</td> </tr> <tr> <td>Tan</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>ESR</td> <td>Less than 150% of specified value</td> </tr> <tr> <td>Leakage Current</td> <td>Within specified value</td> </tr> </table> | Test Time | 1,000 hours | Capacitance Change | Within 20% of initial value | Tan | Less than 150% of specified value | ESR | Less than 150% of specified value | Leakage Current | Within specified value |
| | Test Time | 1,000 hours | | | | | | | | | |
| | Capacitance Change | Within 20% of initial value | | | | | | | | | |
| | Tan | Less than 150% of specified value | | | | | | | | | |
| | ESR | Less than 150% of specified value | | | | | | | | | |
| Leakage Current | Within specified value | | | | | | | | | | |
| * The above specification shall be satisfied when the capacitors are restored to 20°C after subjecting them at 60°C 90 to 95% RH for 1,000 hours. Leakage current should be tested after voltage treatment. ^(100%) | | | | | | | | | | | |
| Ripple Current & Frequency Multipliers | <table border="1"> <tr> <td>Frequency (Hz)</td> <td>120 ≤ f < 1K</td> <td>1K ≤ f < 10K</td> <td>10K ≤ f < 100K</td> <td>100K ≤ f < 500K</td> </tr> <tr> <td>Multiplier</td> <td>0.05</td> <td>0.3</td> <td>0.7</td> <td>1.0</td> </tr> </table> | Frequency (Hz) | 120 ≤ f < 1K | 1K ≤ f < 10K | 10K ≤ f < 100K | 100K ≤ f < 500K | Multiplier | 0.05 | 0.3 | 0.7 | 1.0 |
| | Frequency (Hz) | 120 ≤ f < 1K | 1K ≤ f < 10K | 10K ≤ f < 100K | 100K ≤ f < 500K | | | | | | |
| Multiplier | 0.05 | 0.3 | 0.7 | 1.0 | | | | | | | |

DIAGRAM OF DIMENSIONS (mm)

Lead Spacing and Diameter

Unit : mm

| φD | 6.3 | 6.3 | 6.3 | 8 | 10 | 10 |
|----|------|-----|------|------|-----|------|
| L | 5.5 | 6.5 | 11.0 | 11.5 | 10 | 12.0 |
| P | 2.5 | | 3.5 | | 5.0 | |
| φd | 0.45 | | 0.5 | | 0.6 | |
| α | 1.0 | | | | | |
| β | 0.5 | | | | | |

PART NUMBER EXAMPLE


| Code | Lead Forming Type |
|------|-------------------------------|
| O | Bulk |
| T | 5mm Chip tape |
| A | (Φ4~Φ6.3)2.5mm tape |
| F | (Φ4~Φ8)5mm tape |
| P | Φ≥Φ8mm original(vertical)tape |
| M | 5mm Lead forming |
| C | C Lead forming |
| B | B Lead forming |
| D | (Φ4~Φ8)2.5mm Lead forming |


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CASE SIZE & ELECTRICAL RATING

| W.V. (V) | Surge Voltage (V) | Capacitance (μF) | Code | Size φD x L (mm) | Tan δ (120Hz, 20°C) | L.C. (μA) | ESR (mΩ/at100K~300KHz, 20°C max) | Rate R.C. (mA/rms at 100KHz, 105°C) |
|--------------|-------------------|------------------|------|------------------|---------------------|-----------|----------------------------------|-------------------------------------|
| 2.5V (0E) | 2.9 | 220 | 227 | 6.3x5.5 | 0.12 | 110 | 28 | 2,390 |
| | | 390 | 397 | 6.3x11 | 0.12 | 195 | 18 | 3,160 |
| | | 680 | 687 | 8x11.5 | 0.18 | 340 | 10 | 5,230 |
| | | 1,000 | 108 | 10x10 | 0.18 | 500 | 14 | 4,770 |
| | | 1,500 | 158 | 10x12 | 0.18 | 750 | 12 | 5,500 |
| 4V (0E) | 4.6 | 150 | 157 | 6.3x5.5 | 0.12 | 120 | 40 | 1,810 |
| | | 270 | 277 | 6.3x11 | 0.12 | 216 | 15 | 3,200 |
| | | 560 | 567 | 8x11.5 | 0.18 | 448 | 10 | 5,230 |
| | | 1,200 | 128 | 10x12 | 0.18 | 960 | 12 | 5,500 |
| | | 100 | 107 | 6.3x5.5 | 0.12 | 126 | 40 | 1,810 |
| 6.3V (0J) | 7.2 | 220 | 227 | 6.3x11 | 0.12 | 277 | 18 | 3,160 |
| | | 330 | 337 | 6.3x6.5 | 0.12 | 416 | 28 | 2,390 |
| | | 390 | 397 | 8x11.5 | 0.15 | 491 | 12 | 4,770 |
| | | 470 | 477 | 8x11.5 | 0.15 | 592 | 12 | 4,770 |
| | | 820 | 827 | 10x12 | 0.15 | 1033 | 12 | 5,500 |
| | | 100 | 107 | 6.3x6.5 | 0.12 | 200 | 45 | 1,700 |
| 10V (1A) | 12.0 | 220 | 227 | 6.3x10 | 0.08 | 440 | 30 | 2,500 |
| | | | | 10x10 | 0.15 | 440 | 17 | 3,950 |
| | | 330 | 337 | | | | | |
| | | 560 | 567 | 10x12 | 0.12 | 1360 | 12 | 5,300 |
| | | 47 | 477 | 6.3x5.5 | 0.10 | 150 | 50 | 1,650 |
| 16V (1C) | 18.0 | 100 | 107 | 6.3x11 | 0.10 | 320 | 22 | 2,820 |
| | | 180 | 187 | 8x11.5 | 0.12 | 576 | 16 | 4,360 |
| | | 330 | 337 | 10x10 | 0.12 | 1056 | 16 | 4,360 |
| | | 330 | 337 | 10x12 | 0.12 | 1056 | 14 | 5,050 |
| | | 22 | 226 | 6.3x5.5 | 0.10 | 88 | 60 | 1,450 |
| 20V (1D) | 23.0 | 56 | 566 | 6.3x11 | 0.10 | 224 | 25 | 2,650 |
| | | 100 | 107 | 8x11.5 | 0.15 | 400 | 24 | 3,320 |
| | | 100 | 107 | 10x10 | 0.15 | 400 | 24 | 3,320 |
| | | 150 | 157 | 10x12 | 0.15 | 600 | 20 | 4,320 |
| | | 330 | 337 | 10x12 | 0.12 | 1320 | 24 | 2,800 |
| | | 6.8 | 685 | 6.3x5.5 | 0.10 | 170 | 80 | 1,200 |
| 25V (1E) | 29.0 | 33 | 336 | 8x11.5 | 0.12 | 165 | 24 | 3,320 |
| | | 56 | 566 | 8x11.5 | 0.12 | 280 | 24 | 3,320 |
| | | | | 10x12.5 | 0.12 | 280 | 20 | 4,320 |
| | | 68 | 686 | | | | | |
| | | 100 | 107 | 10x12 | 0.12 | 500 | 20 | 4,320 |
| | | 270 | 277 | 10x12 | 0.12 | 1350 | 25 | 2,800 |
| 35V (1V) | 40.0 | 22 | 226 | 8x11.5 | 0.12 | 154 | 31 | 2,300 |
| | | 39 | 396 | 8x11.5 | 0.12 | 273 | 31 | 2,300 |
| | | 47 | 476 | 10x12 | 0.12 | 329 | 30 | 3,650 |
| | | 68 | 686 | 10x12 | 0.12 | 476 | 28 | 2,700 |
| | | 150 | 157 | 10x12 | 0.12 | 1050 | 26 | 2,700 |
| 50V (1H) | 58.0 | 27 | 276 | 8x11.5 | 0.12 | 390 | 29 | 2,200 |
| | | 47 | 476 | 10x12 | 0.12 | 680 | 28 | 2,600 |
| 63V (1J) | 73.0 | 27 | 276 | 8x11.5 | 0.12 | 340 | 33 | 2,100 |
| | | 47 | 476 | 10x12 | 0.12 | 592 | 29 | 2,600 |