

CapXon KM Series

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

KM Series Standard 105

Features

- Used in communication equipments, switching power supply, etc.
- Safety vent construction design.
- For detail specifications, please refer to Engineering Bulletin No. E102

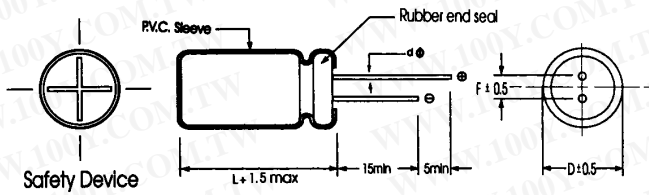


Specifications

| Item | Performance Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|-----|-----|-----|-----|----|----------------------|----------------------|-----|-----|-----|-----|-----|-----|----|-------------|--------------|----|----|----|----|----|----|---|---|-------------|---|---|---|---|---|---|---|---|
| Operating Temperature Range | -40 to +105 | -25 to +105 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rate Voltage Range | 6.3 to 100 VDC | 160 to 450 VDC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Range | 0.1 to 15000 μ F | 0.47 to 220 μ F | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capacitance Tolerance | \pm 20% (120Hz, +20) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leakage Current(+20 , max) | I 0.01 CV or 3 (μ A) After 1 minute whichever is greater measured with rated working voltage applied. | I 0.03 CV (μ A) After 1 minute with rated working voltage applied. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dissipation Factor(tan) | <table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>D.F. (%)max.</td> <td>22</td> <td>19</td> <td>16</td> <td>14</td> <td>12</td> <td>10</td> <td>9</td> <td>8</td> </tr> </table> | | | | | | | | Working Voltage(VDC) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | D.F. (%)max. | 22 | 19 | 16 | 14 | 12 | 10 | 9 | 8 | | | | | | | | | |
| | Working Voltage(VDC) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | D.F. (%)max. | 22 | 19 | 16 | 14 | 12 | 10 | 9 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> <td colspan="2"></td> </tr> <tr> <td>D.F. (%)max.</td> <td>12</td> <td>12</td> <td>12</td> <td>15</td> <td>15</td> <td>17</td> <td colspan="2"></td> </tr> </table> | | | | | | | | Working Voltage(VDC) | 160 | 200 | 250 | 350 | 400 | 450 | | | D.F. (%)max. | 12 | 12 | 12 | 15 | 15 | 17 | | | | | | | | | | | |
| Working Voltage(VDC) | 160 | 200 | 250 | 350 | 400 | 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| D.F. (%)max. | 12 | 12 | 12 | 15 | 15 | 17 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| For capacitance > 1000 μ F, add 2% per another 1000 μ F. (+20 , at 120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Low Temperature Characteristics (120Hz) | Impedance ratio max. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>63</td> <td>100</td> </tr> <tr> <td>Z-25 / Z+20</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z-40 / Z+20</td> <td>8</td> <td>6</td> <td>4</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> </table> | | | | | | | | Working Voltage(VDC) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | Z-25 / Z+20 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | Z-40 / Z+20 | 8 | 6 | 4 | 3 | 3 | 3 | 3 | 3 |
| | Working Voltage(VDC) | 6.3 | 10 | 16 | 25 | 35 | 50 | 63 | 100 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Z-25 / Z+20 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z-40 / Z+20 | 8 | 6 | 4 | 3 | 3 | 3 | 3 | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <tr> <td>Working Voltage(VDC)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> <td colspan="2"></td> </tr> <tr> <td>Z-25 / Z+20</td> <td>2</td> <td>2</td> <td>3</td> <td>5</td> <td>6</td> <td>15</td> <td colspan="2"></td> </tr> </table> | | | | | | | | Working Voltage(VDC) | 160 | 200 | 250 | 350 | 400 | 450 | | | Z-25 / Z+20 | 2 | 2 | 3 | 5 | 6 | 15 | | | | | | | | | | | | |
| Working Voltage(VDC) | 160 | 200 | 250 | 350 | 400 | 450 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Z-25 / Z+20 | 2 | 2 | 3 | 5 | 6 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| For Capacitance Value > 1000 μ F, Add 0.5 per another 1000 μ F for -25 / +20 Add 1 per another 1000 μ F for -40 / +20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Load Life | Test conditions Duration time :2000Hrs Ambient temperature :+105 Applied voltage :Rated DC working voltage After test requirements at +20 Capacitance change : \pm 20% of the initial measured value Dissipation factor : 200% of the initial specified value Leakage current : The initial specified value | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Shelf Life | Test conditions Duration time :1000Hrs Ambient temperature :+105 Applied voltage :None After test requirements at +20 :Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

CapXon KM Series

Diagram of Dimensions: (Unit:mm)



| | | | | | | | | |
|---|-----|-----|-----|-----|-----|-----|-----|----|
| D | 5 | 6.3 | 8 | 10 | 13 | 16 | 18 | 22 |
| F | 2.0 | 2.5 | 3.5 | 5.0 | 5.0 | 7.5 | 7.5 | 10 |
| d | 0.5 | | | 0.6 | | 0.8 | | |

Case Size

| WV(SV) μF | DxL(mm) | | | | | | | | | | | | | |
|--------------|------------|------------|------------|------------|------------|------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| | 6.3 (8) | 10 (13) | 16 (20) | 25 (32) | 35 (44) | 50 (63) | 63 (79) | 100 (125) | 160 (200) | 200 (250) | 250 (300) | 350 (400) | 400 (450) | 450 (500) |
| 0.1 | → | | | | | 5x11 | 5x11 | 5x11 | — | — | — | — | — | — |
| 0.22 | → | | | | | 5x11 | 5x11 | 5x11 | — | — | — | — | — | — |
| 0.33 | → | | | | | 5x11 | 5x11 | 5x11 | — | — | — | — | — | — |
| 0.47 | → | | | | | 5x11 | 5x11 | 5x11 | 5x11 | 5x11 | 5x11 | 6.3x11 | 6.3x11 | 6.3x11 |
| 1 | → | | | | | 5x11 | 5x11 | 5x11 | 6.3x11 | 6.3x11 | 6.3x11 | 6.3x11 | 8x11.5 | 8x11.5 |
| 2.2 | → | | | | | 5x11 | 5x11 | 5x11 | 6.3x11 | 6.3x11 | 8x11.5 | 10x12.5 | 10x12.5 | 10x16 |
| 3.3 | → | | | | | 5x11 | 5x11 | 5x11 | 6.3x11 | 8x11.5 | 8x11.5 | 10x16 | 10x16 | 10x20 |
| 4.7 | → | | | 5x11 | 5x11 | 5x11 | 5x11 | 5x11 | 8x11.5 | 8x11.5 | 10x12.5 | 10x16 | 10x16 | 10x20 |
| 10 | → | | 5x11 | 5x11 | 5x11 | 5x11 | 6.3x11 | 6.3x11 | 10x16 | 10x16 | 10x20 | 10x20 | 13x20 | 13x25 |
| 22 | → | 5x11 | 5x11 | 5x11 | 5x11 | 6.3x11 | 6.3x11 | 8x11.5 | 10x20 | 10x20 | 13x20 | 13x25 | 16x25 | 16x31.5 |
| 33 | → | 5x11 | 5x11 | 5x11 | 5x11 | 6.3x11 | 8x11.5 | 10x12.5 | 10x20 | 13x20 | 13x25 | 16x25 | 16x31.5 | 16x35.5 |
| 47 | → | 5x11 | 5x11 | 5x11 | 6.3x11 | 6.3x11 | 8x11.5 | 10x16 | 13x25 | 13x25 | 13x25 | 16x31.5 | 16x35.5 | — |
| 100 | → | 5x11 | 6.3x11 | 6.3x11 | 6.3x11 | 8x11.5 | 10x12.5 | 10x16 | 13x20 | 16x25 | 16x25 | 16x31.5 | — | — |
| 220 | → | 6.3x11 | 6.3x11 | 8x11.5 | 10x12.5 | 10x12.5 | 10x16 | 10x20 | 16x25 | 16x35.5 | — | — | — | — |
| 330 | → | 8x11.5 | 8x11.5 | 8x11.5 | 10x12.5 | 10x16 | 10x20 | 13x20 | 16x31.5 | — | — | — | — | — |
| 470 | → | 8x11.5 | 8x11.5 | 10x12.5 | 10x16 | 10x20 | 13x20 | 13x25 | 16x31.5 | — | — | — | — | — |
| 1000 | → | 10x12.5 | 10x16 | 10x20 | 13x20 | 13x25 | 16x25 | 16x31.5 | — | — | — | — | — | — |
| 2200 | → | 10x20 | 13x20 | 13x25 | 16x25 | 16x31.5 | 18x35.5 | — | — | — | — | — | — | — |
| 3300 | → | 13x20 | 13x25 | 16x31.5 | 16x35.5 | 18x35.5 | 18x35.5 | — | — | — | — | — | — | — |
| 4700 | → | 13x25 | 16x25 | 16x31.5 | 16x35.5 | 18x41 | — | — | — | — | — | — | — | — |
| 6800 | → | 16x25 | 16x31.5 | 18x35.5 | 18x41 | — | — | — | — | — | — | — | — | — |
| 10000 | → | 16x31.5 | 18x35.5 | 18x41 | — | — | — | — | — | — | — | — | — | — |
| 15000 | → | 18x35.5 | — | — | — | — | — | — | — | — | — | — | — | — |

CapXon KM Series

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Maximum Ripple Current

(mA, rms, 120Hz at 105 °C)

| WV(SV) μF | 6.3 (8) | 10 (13) | 16 (20) | 25 (32) | 35 (44) | 50 (63) | 63 (79) | 100 (125) | 160 (200) | 200 (250) | 250 (300) | 350 (400) | 400 (450) | 450 (500) |
|--------------|------------|------------|------------|------------|------------|------------|------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 0.1 | → | | | | | 8 | 8 | 10 | — | — | — | — | — | — |
| 0.22 | → | | | | | 8 | 8 | 10 | — | — | — | — | — | — |
| 0.33 | → | | | | | 8 | 8 | 10 | — | — | — | — | — | — |
| 0.47 | → | | | | | 8 | 8 | 10 | 12 | 12 | 12 | 14 | 14 | 14 |
| 1 | → | | | | | 12 | 12 | 15 | 17 | 17 | 17 | 20 | 20 | 20 |
| 2.2 | → | | | | | 20 | 20 | 23 | 25 | 25 | 29 | 35 | 35 | 35 |
| 3.3 | → | | | | | 25 | 28 | 32 | 36 | 36 | 42 | 47 | 47 | 54 |
| 4.7 | → | | | 26 | 28 | 30 | 34 | 37 | 43 | 50 | 50 | 55 | 55 | 60 |
| 10 | → | | 35 | 38 | 41 | 46 | 50 | 56 | 59 | 59 | 64 | 79 | 79 | 87 |
| 22 | → | 49 | 54 | 57 | 60 | 68 | 82 | 96 | 96 | 96 | 110 | 130 | 145 | 165 |
| 33 | 54 | 60 | 64 | 69 | 75 | 90 | 100 | 120 | 125 | 140 | 140 | 175 | 185 | 210 |
| 47 | 65 | 70 | 99 | 105 | 110 | 125 | 135 | 160 | 165 | 165 | 180 | 230 | 240 | — |
| 100 | 95 | 105 | 125 | 135 | 170 | 180 | 225 | 245 | 270 | 285 | 310 | — | — | — |
| 220 | 160 | 175 | 215 | 230 | 300 | 345 | 400 | 450 | 480 | — | — | — | — | — |
| 330 | 195 | 245 | 260 | 335 | 400 | 460 | 540 | 700 | — | — | — | — | — | — |
| 470 | 270 | 290 | 370 | 440 | 520 | 610 | 700 | 880 | — | — | — | — | — | — |
| 1000 | 460 | 550 | 640 | 770 | 920 | 1080 | 1210 | — | — | — | — | — | — | — |
| 2200 | 810 | 860 | 1000 | 1170 | 1340 | 1530 | — | — | — | — | — | — | — | — |
| 3300 | 960 | 1100 | 1300 | 1460 | 1650 | 1750 | — | — | — | — | — | — | — | — |
| 4700 | 1330 | 1400 | 1600 | 1780 | 1900 | — | — | — | — | — | — | — | — | — |
| 6800 | 1500 | 1690 | 1900 | 1950 | — | — | — | — | — | — | — | — | — | — |
| 10000 | 1760 | 1950 | 2060 | — | — | — | — | — | — | — | — | — | — | — |
| 15000 | 2075 | — | — | — | — | — | — | — | — | — | — | — | — | — |

Multiplier for Ripple Current vs. Frequency

| CAP(μF) \ Hz | | 50(60) | 120 | 400 | 1K | 10K | 50K-100K |
|--------------|----------------|--------|-----|------|------|------|----------|
| Multiplier | CAP 10 | 0.8 | 1 | 1.30 | 1.30 | 1.65 | 1.70 |
| | 10 < CAP 100 | 0.8 | 1 | 1.23 | 1.23 | 1.48 | 1.53 |
| | 100 < CAP 1000 | 0.8 | 1 | 1.16 | 1.16 | 1.35 | 1.38 |
| | 1000 < CAP | 0.8 | 1 | 1.11 | 1.11 | 1.25 | 1.28 |

Multiplier for Ripple Current vs. Temperature

| Temperature | 45 | 60 | 70 | 85 | 105 |
|-------------|------|------|------|------|------|
| Multiplier | 2.10 | 1.90 | 1.40 | 1.25 | 1.00 |