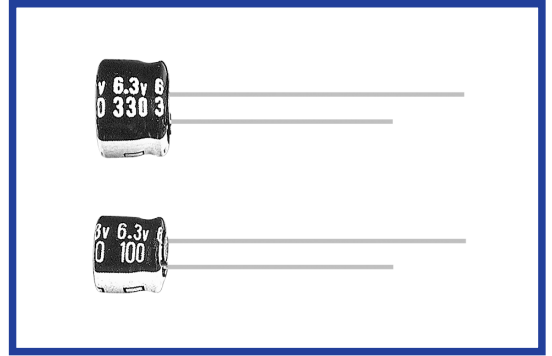


MS5 シリーズ
SERIES

85°C 高さ5mm品
85°C 5mm Height

・85°C 1000時間品。
Load Life : 85°C 1000 hours.



◆規格表 / SPECIFICATIONS

| 項目 Items | 特性 Characteristics | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-------------------------------|---|------------------------------|--|-------------------------|---|---------------|----|---------------|------------------|------|------|------|------|------|------|------|--|------------------|----|----|----|---|---|---|---|--|
| カテゴリ温度範囲 Category Temperature Range | -40~+85°C | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 定格電圧範囲 Rated Voltage Range | 4~50Vdc | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 静電容量許容差 Capacitance Tolerance | ±20% (20°C, 120Hz) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 漏れ電流 Leakage Current (MAX) | I=0.01CV又は3μAのいずれか大なる値以下 (定格電圧印加2分後) I=0.01CV or 3μA whichever is greater. (After 2 minutes application of rated voltage) I=漏れ電流(μA) Leakage Current C=静電容量(μF) Capacitance V=定格電圧(Vdc) Rated Voltage | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 損失角の正接 (tanδ) Dissipation Factor (MAX) | <table border="1"> <tr> <td>定格電圧(Vdc) Rated Voltage</td> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>(20°C, 120Hz)</td> </tr> <tr> <td>tanδ</td> <td>0.35</td> <td>0.26</td> <td>0.22</td> <td>0.18</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td></td> </tr> </table> | 定格電圧(Vdc) Rated Voltage | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | (20°C, 120Hz) | tanδ | 0.35 | 0.26 | 0.22 | 0.18 | 0.16 | 0.14 | 0.12 | | | | | | | | | | |
| 定格電圧(Vdc) Rated Voltage | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | (20°C, 120Hz) | | | | | | | | | | | | | | | | | | | | |
| tanδ | 0.35 | 0.26 | 0.22 | 0.18 | 0.16 | 0.14 | 0.12 | | | | | | | | | | | | | | | | | | | | | |
| 耐久 Endurance | 85°C中で1000時間定格電圧(リップル重畳)印加後、下記項目を満足すること。 After applying rated voltage with rated ripple current for 1000 hrs at 85°C, the capacitors shall meet the following requirements. <table border="1"> <tr> <td>静電容量変化率 Capacitance Change</td> <td>初期値の±25%以内 Within ±25% of the initial value.</td> </tr> <tr> <td>損失角の正接 Dissipation Factor</td> <td>規格値の200%以下 Not more than 200% of the specified value.</td> </tr> <tr> <td>漏れ電流 Leakage Current</td> <td>規格値以下 Not more than the specified value.</td> </tr> </table> | 静電容量変化率 Capacitance Change | 初期値の±25%以内 Within ±25% of the initial value. | 損失角の正接 Dissipation Factor | 規格値の200%以下 Not more than 200% of the specified value. | 漏れ電流 Leakage Current | 規格値以下 Not more than the specified value. | | | | | | | | | | | | | | | | | | | | | |
| 静電容量変化率 Capacitance Change | 初期値の±25%以内 Within ±25% of the initial value. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 損失角の正接 Dissipation Factor | 規格値の200%以下 Not more than 200% of the specified value. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 漏れ電流 Leakage Current | 規格値以下 Not more than the specified value. | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 低温特性 Low Temperature Stability (インピーダンス比) Impedance Ratio (MAX) | <table border="1"> <tr> <td>定格電圧(Vdc) Rated Voltage</td> <td>4</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> <td>50</td> <td>(120Hz)</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>7</td> <td>6</td> <td>4</td> <td>4</td> <td>3</td> <td>2</td> <td>2</td> <td></td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>15</td> <td>12</td> <td>10</td> <td>8</td> <td>6</td> <td>4</td> <td>4</td> <td></td> </tr> </table> | 定格電圧(Vdc) Rated Voltage | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | (120Hz) | Z(-25°C)/Z(20°C) | 7 | 6 | 4 | 4 | 3 | 2 | 2 | | Z(-40°C)/Z(20°C) | 15 | 12 | 10 | 8 | 6 | 4 | 4 | |
| 定格電圧(Vdc) Rated Voltage | 4 | 6.3 | 10 | 16 | 25 | 35 | 50 | (120Hz) | | | | | | | | | | | | | | | | | | | | |
| Z(-25°C)/Z(20°C) | 7 | 6 | 4 | 4 | 3 | 2 | 2 | | | | | | | | | | | | | | | | | | | | | |
| Z(-40°C)/Z(20°C) | 15 | 12 | 10 | 8 | 6 | 4 | 4 | | | | | | | | | | | | | | | | | | | | | |

◆リップル電流補正係数 / MULTIPLIER FOR RIPPLE CURRENT

周波数係数 Frequency coefficient

| 周波数 (Hz) Frequency | 60(50) | 120 | 500 | 1k | 10k≤ |
|-----------------------|--------|------|------|------|------|
| 0.47~1μF | 0.50 | 1.00 | 1.20 | 1.30 | 1.50 |
| 1.5~6.8μF | 0.65 | 1.00 | 1.20 | 1.30 | 1.50 |
| 10~68μF | 0.80 | 1.00 | 1.20 | 1.30 | 1.50 |
| 100~470μF | 0.80 | 1.00 | 1.10 | 1.15 | 1.20 |

◆副記号 / OPTION

| | 記号 Code |
|--------------------|---------|
| PETスリーブ PET Sleeve | EFC |

◆呼称方法 / PART NUMBER

| | | | | | | |
|-----------------------|-----------------|---------------------|----------------------------------|---------------|-------------------------|---------------------|
| □□□ | MS5 | □□□□□ | M | □□□ | □□ | D×L |
| 定格電圧 Rated Voltage | シリーズ名 Series | 静電容量 Capacitance | 静電容量許容差 Capacitance Tolerance | 副記号 Option | リード加工記号 Lead Forming | ケースサイズ Case Size |

◆寸法図 / DIMENSIONS

(mm)



◆標準品一覧表 / STANDARD SIZE

Size $\phi D \times L$ (mm), Rated Ripple Current (mA r.m.s./85°C, 120Hz)

| 定格電圧 Vdc 静電容量 Cap(μF) | 4 | | 6.3 | | 10 | | 16 | |
|---|-------|--------|-------|--------|-------|--------|-------|--------|
| | Size | Ripple | Size | Ripple | Size | Ripple | Size | Ripple |
| 4.7 | | | | | | | 4x5 | 11 |
| 6.8 | | | | | 4x5 | 10 | 4x5 | 13 |
| 10 | | | 4x5 | 14 | 4x5 | 16 | 4x5 | 18 |
| 15 | | | 4x5 | 18 | 4x5 | 22 | 5x5 | 26 |
| 22 | 4x5 | 20 | 4x5 | 22 | 5x5 | 30 | 5x5 | 35 |
| 33 | 4x5 | 27 | 5x5 | 34 | 5x5 | 45 | 6.3x5 | 51 |
| 47 | 4x5 | 37 | 5x5 | 37 | 6.3x5 | 50 | 6.3x5 | 65 |
| 68 | 5x5 | 45 | 6.3x5 | 55 | 6.3x5 | 59 | 6.3x5 | 70 |
| 100 | 5x5 | 62 | 6.3x5 | 62 | 6.3x5 | 80 | 8x5 | 92 |
| 220 | 6.3x5 | 74 | 8x5 | 120 | 8x5 | 145 | | |
| 330 | 8x5 | 145 | 8x5 | 145 | | | | |
| 470 | 8x5 | 181 | | | | | | |

| 定格電圧 Vdc 静電容量 Cap(μF) | 25 | | 35 | | 50 | |
|---|-------|--------|-------|--------|-------|--------|
| | Size | Ripple | Size | Ripple | Size | Ripple |
| 0.47 | | | | | 4x5 | 6 |
| 0.68 | | | | | 4x5 | 7 |
| 1 | | | | | 4x5 | 8.6 |
| 1.5 | | | | | 4x5 | 8.7 |
| 2.2 | | | 4x5 | 9 | 4x5 | 9.1 |
| 3.3 | 4x5 | 11 | 4x5 | 12 | 4x5 | 13 |
| 4.7 | 4x5 | 13 | 4x5 | 14 | 5x5 | 20 |
| 6.8 | 4x5 | 19 | 5x5 | 20 | 6.3x5 | 26 |
| 10 | 5x5 | 27 | 5x5 | 27 | 6.3x5 | 31 |
| 15 | 5x5 | 33 | 6.3x5 | 35 | 6.3x5 | 39 |
| 22 | 6.3x5 | 46 | 6.3x5 | 46 | 8x5 | 60 |
| 33 | 6.3x5 | 54 | 8x5 | 65 | 8x5 | 80 |
| 47 | 6.3x5 | 65 | 8x5 | 85 | | |
| 68 | 8x5 | 90 | | | | |
| 100 | 8x5 | 120 | | | | |