

## TKV series

105°C 2000時間 低ESR品  
Load life : 105°C 2000 hours, Low ESR

AEC-Q200



## ◆規格表/SPECIFICATIONS

| 項目 Item  | 特性 Characteristics  |      |      |      |      |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
|--|---|------|------|------|------|--|-------------------------------|---|------------------------------|--|-------------------------|---|------------------|------|------|------|------|------|------------------|---|---|---|---|---|------------------|---|---|---|---|---|
| カテゴリ温度範囲 Category Temperature Range                                      | -55～+105°C  |      |      |      |      |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| 定格電圧範囲 Rated Voltage Range   | 6.3～35Vdc   |      |      |      |      |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| 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)<br>I=0.01CV or 3μA whichever is greater. (After 2 minutes)<br>I=漏れ電流(μA) C=静電容量(μF) V=定格電圧(Vdc)<br>Leakage Current Capacitance Rated Voltage  |      |      |      |      |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| 損失角の正接(tan δ ) Dissipation Factor(MAX)                                   | <table border="1"> <tr> <td>定格電圧 (Vdc)<br/>Rated Voltage</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td>tan δ</td> <td>0.26</td> <td>0.19</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> </tr> </table> (20°C, 120Hz)   |      |      |      |      |  | 定格電圧 (Vdc)<br>Rated Voltage   | 6.3   | 10                           | 16   | 25                      | 35  | tan δ            | 0.26 | 0.19 | 0.16 | 0.14 | 0.12 |                  |   |   |   |   |   |                  |   |   |   |   |   |
| 定格電圧 (Vdc)<br>Rated Voltage  | 6.3   | 10   | 16   | 25   | 35   |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| tan δ  | 0.26  | 0.19 | 0.16 | 0.14 | 0.12 |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| 耐久性 Endurance  | 105°C中で2000時間定格電圧印加後、下記項目を満足すること。<br>After applying rated voltage for 2000 hours at 105°C, the capacitors shall meet the following requirements. <table border="1"> <tr> <td>静電容量変化率<br/>Capacitance Change</td> <td>初期値の ±30% 以内<br/>Within ±30% of the initial value.</td> </tr> <tr> <td>損失角の正接<br/>Dissipation Factor</td> <td>規格値の 200% 以下<br/>Not more than 200% of the specified value.</td> </tr> <tr> <td>漏れ電流<br/>Leakage Current</td> <td>規格値以下<br/>Not more than the specified value.</td> </tr> </table> |      |      |      |      |  | 静電容量変化率<br>Capacitance Change | 初期値の ±30% 以内<br>Within ±30% of the initial value. | 損失角の正接<br>Dissipation Factor | 規格値の 200% 以下<br>Not more than 200% of the specified value. | 漏れ電流<br>Leakage Current | 規格値以下<br>Not more than the specified value. |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| 静電容量変化率<br>Capacitance Change  | 初期値の ±30% 以内<br>Within ±30% of the initial value.   |      |      |      |      |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| 損失角の正接<br>Dissipation Factor   | 規格値の 200% 以下<br>Not more than 200% of the specified value.  |      |      |      |      |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| 漏れ電流<br>Leakage Current  | 規格値以下<br>Not more than the specified value.   |      |      |      |      |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| 低温特性<br>Low Temperature Stability<br>(インピーダンス比)<br>Impedance Ratio (MAX) | <table border="1"> <tr> <td>定格電圧 (Vdc)<br/>Rated Voltage</td> <td>6.3</td> <td>10</td> <td>16</td> <td>25</td> <td>35</td> </tr> <tr> <td>Z(-25°C)/Z(20°C)</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> <td>2</td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> <td>3</td> </tr> <tr> <td>Z(-55°C)/Z(20°C)</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> </tr> </table> (120Hz)   |      |      |      |      |  | 定格電圧 (Vdc)<br>Rated Voltage   | 6.3   | 10                           | 16   | 25                      | 35  | Z(-25°C)/Z(20°C) | 2    | 2    | 2    | 2    | 2    | Z(-40°C)/Z(20°C) | 3 | 3 | 3 | 3 | 3 | Z(-55°C)/Z(20°C) | 4 | 4 | 4 | 3 | 3 |
| 定格電圧 (Vdc)<br>Rated Voltage  | 6.3   | 10   | 16   | 25   | 35   |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| Z(-25°C)/Z(20°C)   | 2   | 2    | 2    | 2    | 2    |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| Z(-40°C)/Z(20°C)   | 3   | 3    | 3    | 3    | 3    |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |
| Z(-55°C)/Z(20°C)   | 4   | 4    | 4    | 3    | 3    |  |                               |   |                              |  |                         |   |                  |      |      |      |      |      |                  |   |   |   |   |   |                  |   |   |   |   |   |

## ◆呼称方法/PART NUMBER

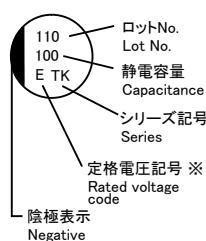
|                       |                 |                     |                                  |               |                     |
|-----------------------|-----------------|---------------------|----------------------------------|---------------|---------------------|
| □□□                   | TKV             | □□□□□               | M                                | □□□           | D x L               |
| 定格電圧<br>Rated Voltage | シリーズ名<br>Series | 静電容量<br>Capacitance | 静電容量許容差<br>Capacitance Tolerance | 副記号<br>Option | ケースサイズ<br>Case Size |

## ◆リップル電流補正係数/

## MULTIPLIER FOR RIPPLE CURRENT

| 周波数 (Hz)<br>Frequency | 120         | 1k   | 10k  | 100k≤ |
|-----------------------|-------------|------|------|-------|
| 係数<br>Coefficient     | 33 μF       | 0.42 | 0.75 | 0.90  |
|                       | 47～150 μF   | 0.44 | 0.80 | 0.95  |
|                       | 220～1800 μF | 0.60 | 0.85 | 0.95  |

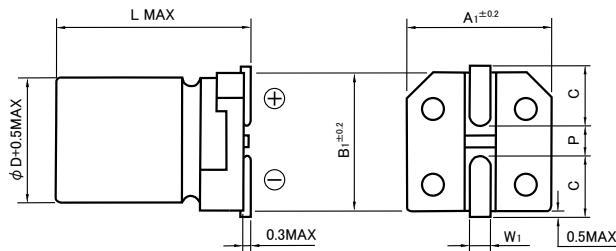
## ◆表示/MARKING



※電圧記号 Voltage code

|                             |     |    |    |    |    |
|-----------------------------|-----|----|----|----|----|
| 定格電圧 (Vdc)<br>Rated Voltage | 6.3 | 10 | 16 | 25 | 35 |
| 電圧記号<br>Voltage code        | j   | A  | C  | E  | V  |

## ◆寸法図／DIMENSIONS



| (mm) |      |      |      |     |         |     |
|------|------|------|------|-----|---------|-----|
| φD   | L    | A1   | B1   | C   | W1      | P   |
| 6.3  | 6.1  | 6.6  | 6.6  | 2.7 | 0.5~0.8 | 1.8 |
| 6.3  | 8    | 6.6  | 6.6  | 2.7 | 0.5~0.8 | 1.8 |
| 8    | 10.5 | 8.3  | 8.3  | 2.9 | 0.8~1.1 | 3.1 |
| 10   | 10.5 | 10.3 | 10.3 | 3.2 | 0.8~1.1 | 4.5 |

## ◆標準品一覧表／STANDARD SIZE

Size φD × L(mm), Rated Ripple Current(mA r.m.s./105°C, 100kHz), ESR(Ω MAX/20°C, 100kHz)

| Vdc | Cap (μF) | Size (φD × L) | Ripple | ESR  |
|-----|----------|---------------|--------|------|
| 6.3 | 100      | 6.3×6.1       | 300    | 0.26 |
|     | 220      | 6.3×6.1       | 300    | 0.26 |
|     | 330      | 6.3×8         | 600    | 0.16 |
|     | 470      | 8×10.5        | 850    | 0.08 |
|     | 1000     | 8×10.5        | 850    | 0.08 |
|     | 1500     | 10×10.5       | 1190   | 0.06 |
|     | 1800     | 10×10.5       | 850    | 0.08 |
| 10  | 150      | 6.3×6.1       | 300    | 0.26 |
|     | 220      | 6.3×8         | 600    | 0.16 |
|     | 330      | 8×10.5        | 850    | 0.08 |
|     | 470      | 8×10.5        | 850    | 0.08 |
|     | 680      | 8×10.5        | 850    | 0.08 |
|     | 1000     | 10×10.5       | 1190   | 0.06 |
|     | 1200     | 10×10.5       | 850    | 0.08 |
| 16  | 47       | 6.3×6.1       | 300    | 0.26 |
|     | 100      | 6.3×6.1       | 300    | 0.26 |
|     |          | 6.3×8         | 600    | 0.16 |
|     | 220      | 6.3×8         | 600    | 0.16 |
|     | 330      | 8×10.5        | 850    | 0.08 |
|     | 470      | 8×10.5        | 850    | 0.08 |
|     | 680      | 10×10.5       | 1190   | 0.06 |
|     | 820      | 10×10.5       | 850    | 0.08 |

| Vdc | Cap (μF) | Size (φD × L) | Ripple | ESR  |
|-----|----------|---------------|--------|------|
| 25  | 33       | 6.3×6.1       | 300    | 0.26 |
|     | 68       | 6.3×6.1       | 300    | 0.26 |
|     | 100      | 6.3×8         | 600    | 0.16 |
|     | 150      | 8×10.5        | 850    | 0.08 |
|     | 220      | 8×10.5        | 850    | 0.08 |
|     | 330      | 8×10.5        | 850    | 0.08 |
|     | 470      | 10×10.5       | 1190   | 0.06 |
|     | 560      | 10×10.5       | 850    | 0.08 |
| 35  | 33       | 6.3×6.1       | 300    | 0.26 |
|     | 47       | 6.3×6.1       | 300    | 0.26 |
|     | 68       | 6.3×8         | 600    | 0.16 |
|     | 100      | 6.3×8         | 600    | 0.16 |
|     |          | 8×10.5        | 850    | 0.08 |
|     | 150      | 8×10.5        | 850    | 0.08 |
|     | 220      | 8×10.5        | 850    | 0.08 |