

TRV series

105°C 5000~10000時間 低インピーダンス品  
Load Life : 105°C 5000 ~ 10000 hours, Low Impedance

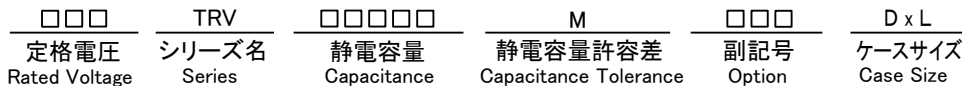
AEC-Q200



◆規格表/SPECIFICATIONS

| 項目 Item  | 特性 Characteristics  |                             |   |                     |                      |                               |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
|--|---|-----------------------------|---|---------------------|----------------------|-------------------------------|--|---------|---------------|------------------------------|---|-----------|-------------------------|------|----------|------|--|-----------|----------|-------|------|------|------|------|--|
| カテゴリ温度範囲<br>Category Temperature Range                                   | -40~+105°C  |                             |   |                     |                      |                               |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
| 定格電圧範囲<br>Rated Voltage Range  | 6.3~50Vdc   |                             |   |                     |                      |                               |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
| 静電容量許容差<br>Capacitance Tolerance   | ±20%(20°C, 120Hz)   |                             |   |                     |                      |                               |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
| 漏れ電流<br>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)<br>Dissipation Factor(MAX)                                 | <table border="1"> <thead> <tr> <th>定格電圧 (Vdc)<br/>Rated Voltage</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>(20°C, 120Hz)</th> </tr> </thead> <tbody> <tr> <td>φ 6.3~10</td> <td>0.32</td> <td>0.28</td> <td>0.26</td> <td>0.16</td> <td>0.14</td> <td>0.14</td> <td></td> </tr> <tr> <td>φ 12.5~18</td> <td>0.30</td> <td>0.26</td> <td>0.22</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td></td> </tr> </tbody> </table> <p>1000μFを越えるものは1000μF増す毎に上表の値に0.02を加えた値とする。<br/>When rated capacitance is over 1000μF, tan δ shall be added 0.02 to the listed value with increase of every 1000μF.</p>  | 定格電圧 (Vdc)<br>Rated Voltage | 6.3   | 10                  | 16                   | 25                            | 35   | 50      | (20°C, 120Hz) | φ 6.3~10                     | 0.32  | 0.28      | 0.26                    | 0.16 | 0.14     | 0.14 |  | φ 12.5~18 | 0.30     | 0.26  | 0.22 | 0.16 | 0.14 | 0.12 |  |
| 定格電圧 (Vdc)<br>Rated Voltage  | 6.3   | 10                          | 16  | 25                  | 35                   | 50                            | (20°C, 120Hz)  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
| φ 6.3~10   | 0.32  | 0.28                        | 0.26  | 0.16                | 0.14                 | 0.14                          |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
| φ 12.5~18  | 0.30  | 0.26                        | 0.22  | 0.16                | 0.14                 | 0.12                          |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
| 耐久性<br>Endurance   | <p>105°C中で右表の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 specified time at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <thead> <tr> <th>項目</th> <th>初期値の ±30% 以内<br/>Within ±30% of the initial value.</th> <th>ケースサイズ<br/>Case Size</th> <th>時間(hrs)<br/>Life Time</th> </tr> </thead> <tbody> <tr> <td>静電容量変化率<br/>Capacitance Change</td> <td>規格値の 300% 以下<br/>Not more than 300% of the specified value.</td> <td rowspan="2">φ D=6.3</td> <td>L=6.1: 5000</td> </tr> <tr> <td>損失角の正接<br/>Dissipation Factor</td> <td>規格値以下<br/>Not more than the specified value.</td> <td>L=8: 6000</td> </tr> <tr> <td>漏れ電流<br/>Leakage Current</td> <td></td> <td>φ D=8,10</td> <td>8000</td> </tr> <tr> <td></td> <td></td> <td>φ D≥12.5</td> <td>10000</td> </tr> </tbody> </table> | 項目                          | 初期値の ±30% 以内<br>Within ±30% of the initial value. | ケースサイズ<br>Case Size | 時間(hrs)<br>Life Time | 静電容量変化率<br>Capacitance Change | 規格値の 300% 以下<br>Not more than 300% of the specified value. | φ D=6.3 | L=6.1: 5000   | 損失角の正接<br>Dissipation Factor | 規格値以下<br>Not more than the specified value. | L=8: 6000 | 漏れ電流<br>Leakage Current |      | φ D=8,10 | 8000 |  |           | φ D≥12.5 | 10000 |      |      |      |      |  |
| 項目   | 初期値の ±30% 以内<br>Within ±30% of the initial value.   | ケースサイズ<br>Case Size         | 時間(hrs)<br>Life Time                              |                     |                      |                               |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
| 静電容量変化率<br>Capacitance Change  | 規格値の 300% 以下<br>Not more than 300% of the specified value.  | φ D=6.3                     | L=6.1: 5000                                       |                     |                      |                               |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
| 損失角の正接<br>Dissipation Factor   | 規格値以下<br>Not more than the specified value.   |                             | L=8: 6000   |                     |                      |                               |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
| 漏れ電流<br>Leakage Current  |   | φ D=8,10                    | 8000  |                     |                      |                               |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
|  |   | φ D≥12.5                    | 10000   |                     |                      |                               |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
| 低温特性<br>Low Temperature Stability<br>(インピーダンス比)<br>Impedance Ratio (MAX) | <table border="1"> <thead> <tr> <th>定格電圧 (Vdc)<br/>Rated Voltage</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>(120Hz)</th> </tr> </thead> <tbody> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>4</td> <td>4</td> <td>4</td> <td>4</td> <td>3</td> <td>3</td> <td></td> </tr> </tbody> </table>   | 定格電圧 (Vdc)<br>Rated Voltage | 6.3   | 10                  | 16                   | 25                            | 35   | 50      | (120Hz)       | Z(-40°C)/Z(20°C)             | 4   | 4         | 4                       | 4    | 3        | 3    |  |           |          |       |      |      |      |      |  |
| 定格電圧 (Vdc)<br>Rated Voltage  | 6.3   | 10                          | 16  | 25                  | 35                   | 50                            | (120Hz)  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |
| Z(-40°C)/Z(20°C)   | 4   | 4                           | 4   | 4                   | 3                    | 3                             |  |         |               |                              |   |           |                         |      |          |      |  |           |          |       |      |      |      |      |  |

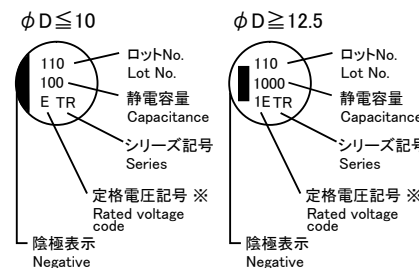
◆呼称方法/PART NUMBER



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

| 周波数 (Hz)<br>Frequency | 120  | 1k   | 10k  | 100k≤ |
|-----------------------|------|------|------|-------|
| 10~33 μF              | 0.45 | 0.75 | 0.90 | 1.00  |
| 47~100 μF             | 0.50 | 0.80 | 0.95 | 1.00  |
| 220~8200 μF           | 0.60 | 0.85 | 0.95 | 1.00  |

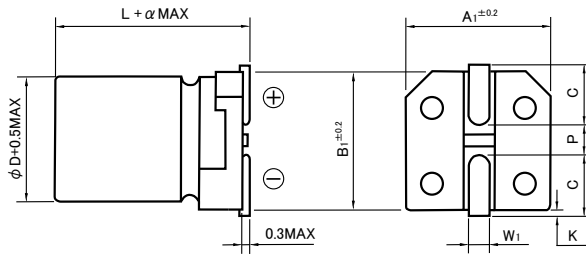
◆表示/MARKING



※電圧記号 Voltage code

| 定格電圧 (Vdc)<br>Rated Voltage | 6.3            | 10 | 16 |
|-----------------------------|----------------|----|----|
| 記号 code                     | φ D ≤ 10: j    | A  | C  |
|                             | φ D ≥ 12.5: 0J | 1A | 1C |
| 定格電圧 (Vdc)<br>Rated Voltage | 25             | 35 | 50 |
| 記号 code                     | φ D ≤ 10: E    | V  | H  |
|                             | φ D ≥ 12.5: 1E | 1V | 1H |

◆寸法図／DIMENSIONS



| φD   | L    | A1   | B1   | C   | W1      | P   | K       | α   |
|------|------|------|------|-----|---------|-----|---------|-----|
| 6.3  | 6.1  | 6.6  | 6.6  | 2.7 | 0.5~0.8 | 1.8 | 0.5MAX  | 0   |
| 6.3  | 8    | 6.6  | 6.6  | 2.7 | 0.5~0.8 | 1.8 | 0.5MAX  | 0   |
| 8    | 10.5 | 8.3  | 8.3  | 2.9 | 0.8~1.1 | 3.1 | 0.5MAX  | 0   |
| 10   | 10.5 | 10.3 | 10.3 | 3.2 | 0.8~1.1 | 4.5 | 0.5MAX  | 0   |
| 12.5 | 13.5 | 13   | 13   | 4.9 | 0.8~1.1 | 4.5 | 0.7±0.4 | 0.5 |
| 12.5 | 16   | 13   | 13   | 4.9 | 0.8~1.1 | 4.5 | 0.7±0.4 | 0.5 |
| 16   | 16.5 | 17   | 17   | 6   | 1.0~1.6 | 6.8 | 0.7±0.4 | 0.5 |
| 16   | 21.5 | 17   | 17   | 6   | 1.0~1.6 | 6.8 | 0.7±0.4 | 0.5 |
| 18   | 16.5 | 19   | 19   | 7   | 1.0~1.6 | 6.8 | 0.7±0.4 | 0.5 |
| 18   | 21.5 | 19   | 19   | 7   | 1.0~1.6 | 6.8 | 0.7±0.4 | 0.5 |

◆標準品一覧表／STANDARD SIZE

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

| Vdc | Cap (μF) | Size (φD×L) | Ripple | Impedance |
|-----|----------|-------------|--------|-----------|
| 6.3 | 470      | 8×10.5      | 600    | 0.15      |
|     | 820      | 10×10.5     | 850    | 0.12      |
|     | 2200     | 12.5×13.5   | 950    | 0.092     |
|     | 2700     | 12.5×16     | 1200   | 0.074     |
|     | 3900     | 16×16.5     | 1450   | 0.066     |
|     | 5600     | 18×16.5     | 1550   | 0.064     |
|     | 6800     | 16×21.5     | 2000   | 0.041     |
|     | 8200     | 18×21.5     | 2150   | 0.039     |
| 10  | 330      | 8×10.5      | 600    | 0.15      |
|     | 680      | 10×10.5     | 850    | 0.12      |
|     | 1800     | 12.5×13.5   | 950    | 0.092     |
|     | 2200     | 12.5×16     | 1200   | 0.074     |
|     | 3300     | 16×16.5     | 1450   | 0.066     |
|     | 4700     | 18×16.5     | 1550   | 0.064     |
|     | 5600     | 16×21.5     | 2000   | 0.041     |
|     | 6800     | 18×21.5     | 2150   | 0.039     |
| 16  | 330      | 8×10.5      | 600    | 0.15      |
|     | 470      | 10×10.5     | 850    | 0.12      |
|     | 1500     | 12.5×13.5   | 950    | 0.092     |
|     | 1800     | 12.5×16     | 1200   | 0.074     |
|     | 2200     | 16×16.5     | 1450   | 0.066     |
|     | 3300     | 18×16.5     | 1550   | 0.064     |
|     | 4700     | 16×21.5     | 2000   | 0.041     |
|     | 5600     | 18×21.5     | 2150   | 0.039     |

| Vdc  | Cap (μF) | Size (φD×L) | Ripple  | Impedance |     |
|------|----------|-------------|---------|-----------|-----|
| 25   | 100      | 6.3×8       | 230     | 0.7       |     |
|      | 220      | 8×10.5      | 600     | 0.15      |     |
|      | 330      | 10×10.5     | 850     | 0.12      |     |
|      | 1000     | 12.5×13.5   | 950     | 0.092     |     |
|      | 1200     | 12.5×16     | 1200    | 0.074     |     |
|      | 1500     | 16×16.5     | 1450    | 0.066     |     |
|      | 2200     | 18×16.5     | 1550    | 0.064     |     |
|      | 2700     | 16×21.5     | 2000    | 0.041     |     |
|      | 3300     | 18×21.5     | 2150    | 0.039     |     |
|      | 35       | 10          | 6.3×6.1 | 140       | 1   |
| 22   |          | 6.3×6.1     | 140     | 1         |     |
| 33   |          | 6.3×6.1     | 140     | 1         |     |
| 47   |          | 6.3×8       | 230     | 0.7       |     |
| 100  |          | 8×10.5      | 600     | 0.15      |     |
| 220  |          | 10×10.5     | 850     | 0.12      |     |
| 470  |          | 12.5×13.5   | 950     | 0.092     |     |
| 680  |          | 12.5×16     | 1200    | 0.074     |     |
| 1000 |          | 16×16.5     | 1450    | 0.066     |     |
| 1500 |          | 18×16.5     | 1550    | 0.064     |     |
| 2200 |          | 16×21.5     | 2000    | 0.041     |     |
| 2700 |          | 18×21.5     | 2150    | 0.039     |     |
| 50   |          | 10          | 6.3×6.1 | 140       | 1   |
|      |          | 33          | 6.3×8   | 230       | 0.7 |
|      | 47       | 8×10.5      | 350     | 0.36      |     |
|      | 100      | 10×10.5     | 670     | 0.25      |     |
|      | 330      | 12.5×13.5   | 850     | 0.18      |     |
|      | 390      | 12.5×16     | 950     | 0.15      |     |
|      | 470      | 16×16.5     | 1200    | 0.12      |     |
|      | 820      | 18×16.5     | 1300    | 0.12      |     |
|      | 1000     | 16×21.5     | 1600    | 0.08      |     |
|      | 1500     | 18×21.5     | 1650    | 0.072     |     |