

WA シリーズ  
SERIES

85°C 高さ9mm~25mm品  
85°C 9mm~25mm Height

・85°C 2000時間品。  
Load Life : 85°C 2000 hours.

RoHS  
compliance



◆規格表／SPECIFICATIONS

| 項目 Items                                                                | 特性 Characteristics                                                                                                                                                              |                                                                                                         |
|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|
| カテゴリ温度範囲<br>Category Temperature Range                                  | -40~+85°C                                                                                                                                                                       | -25~+85°C                                                                                               |
| 定格電圧範囲<br>Rated Voltage Range                                           | 6.3~250Vdc                                                                                                                                                                      | 350~450Vdc                                                                                              |
| 静電容量許容差<br>Capacitance Tolerance                                        | ±20%(20°C, 120Hz)                                                                                                                                                               |                                                                                                         |
| 漏れ電流<br>Leakage Current(MAX)                                            | 6.3~50Vdc                                                                                                                                                                       | 160~450Vdc                                                                                              |
|                                                                         | I=0.01CV又は3µAのいずれか大なる値以下<br>I=0.01CV or 3µA whichever is greater.<br>(定格電圧印加2分後)<br>(After 2 minutes application of rated voltage)                                              | CV≤1000<br>CV>1000                                                                                      |
|                                                                         | I=0.1CV+40µA以下(1分値)<br>I=0.1CV+40µA (1 minute)<br>I=0.03CV+15µA以下(5分値)<br>I=0.03CV+15µA (5 minutes)                                                                             | I=0.04CV+100µA以下(1分値)<br>I=0.04CV+100µA (1 minute)<br>I=0.02CV+25µA以下(5分値)<br>I=0.02CV+25µA (5 minutes) |
|                                                                         | I=漏れ電流(µA)<br>Leakage Current                                                                                                                                                   | C=静電容量(µF)<br>Capacitance<br>V=定格電圧(Vdc)<br>Rated Voltage                                               |
| 損失角の正接(tanδ)<br>Dissipation Factor(MAX)                                 | 定格電圧(Vdc)<br>Rated Voltage                                                                                                                                                      | 6.3 10 16 25 35 50 160 200 250 350 400 450 (20°C, 120Hz)                                                |
|                                                                         | tanδ                                                                                                                                                                            | 0.26 0.22 0.18 0.16 0.14 0.12 0.20 0.20 0.20 0.20 0.20 0.20                                             |
| 耐久<br>Endurance                                                         | 85°C中で2000時間定格電圧(リプル重畳)印加後、下記項目を満足すること。<br>After applying rated voltage with rated ripple current for 2000 hours at 85°C, the capacitors shall meet the following requirements. |                                                                                                         |
|                                                                         | 静電容量変化率<br>Capacitance Change                                                                                                                                                   | 初期値の±25%以内<br>Within ±25% 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) | 定格電圧(Vdc)<br>Rated Voltage                                                                                                                                                      | 6.3 10 16 25 35 50 160 200 250 350 400 450 (120Hz)                                                      |
|                                                                         | Z(-25°C)/Z(20°C)                                                                                                                                                                | 6 4 4 3 2 2 3 3 3 5 5 7                                                                                 |
|                                                                         | Z(-40°C)/Z(20°C)                                                                                                                                                                | 12 10 8 6 4 3 - - - - -                                                                                 |

◆リプル電流補正係数／

MULTIPLIER FOR RIPPLE CURRENT

| 周波数(Hz)<br>Frequency |              | 60(50) | 120  | 500  | 1k   | 10k≤ |
|----------------------|--------------|--------|------|------|------|------|
| 係数<br>Coefficient    | 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 |
|                      | 100~1000μF   | 0.80   | 1.00 | 1.10 | 1.15 | 1.20 |
|                      | 2200~10000μF | 0.80   | 1.00 | 1.05 | 1.10 | 1.15 |

◆副記号／OPTION

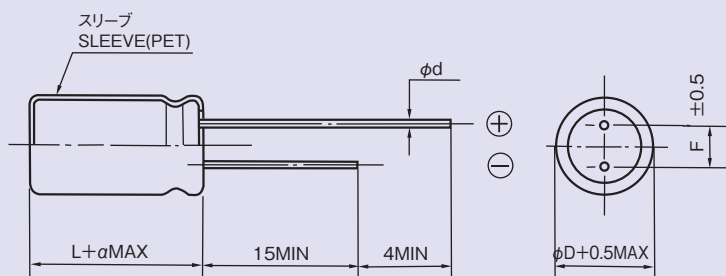
|                    | 記号 Code |
|--------------------|---------|
| PETスリーブ PET Sleeve | EFC     |

◆呼称方法／PART NUMBER

|                       |                 |                     |                                  |               |                         |                     |
|-----------------------|-----------------|---------------------|----------------------------------|---------------|-------------------------|---------------------|
| □□□                   | WA              | □□□□□               | M                                | □□□           | □□                      | D×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 | リード加工記号<br>Lead Forming | ケースサイズ<br>Case Size |

## ◆寸法図／DIMENSIONS

(mm)



|          |                                                          |     |      |     |    |
|----------|----------------------------------------------------------|-----|------|-----|----|
| $\phi D$ | 8                                                        | 10  | 12.5 | 16  | 18 |
| $\phi d$ | 0.6                                                      |     |      | 0.8 |    |
| F        | 3.5                                                      | 5.0 |      | 7.5 |    |
| $\alpha$ | $L \leq 16 : \alpha = 1.5$<br>$L \geq 20 : \alpha = 2.0$ |     |      |     |    |

## ◆標準品一覽表／STANDARD SIZE

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

| 定格電圧<br>Vdc<br>静電容量<br>Cap(μF) | 6.3     |        | 10      |        | 16    |        | 25      |        | 35      |        | 50      |        |
|--------------------------------|---------|--------|---------|--------|-------|--------|---------|--------|---------|--------|---------|--------|
|                                | Size    | Ripple | Size    | Ripple | Size  | Ripple | Size    | Ripple | Size    | Ripple | Size    | Ripple |
| 100                            |         |        |         |        |       |        |         |        |         |        | 8×9     | 240    |
| 150                            |         |        |         |        |       |        |         |        | 8×9     | 260    | 10×9    | 320    |
| 220                            |         |        |         |        |       |        | 8×9     | 320    | 10×9    | 360    |         |        |
| 330                            |         |        |         |        | 8×9   | 350    | 10×9    | 410    | 10×9    | 420    |         |        |
| 470                            | 8×9     | 380    | 8×9     | 380    | 8×9   | 380    | 10×9    | 460    |         |        | 12.5×16 | 700    |
| 680                            | 8×9     | 420    | 10×9    | 510    | 10×9  | 510    | 12.5×16 | 760    | 12.5×16 | 760    | 16×16   | 810    |
| 1000                           | 10×9    | 550    | 10×9    | 550    |       |        | 12.5×16 | 940    | 16×16   | 950    | 16×20   | 1050   |
| 2200                           | 12.5×16 | 1080   | 12.5×16 | 1080   | 16×16 | 1100   | 16×20   | 1400   | 18×20   | 1500   | 18×25   | 1650   |
| 3300                           | 12.5×16 | 1100   | 16×16   | 1120   | 16×20 | 1500   | 18×20   | 1550   | 18×25   | 1850   |         |        |
| 4700                           | 18×16   | 1200   | 16×20   | 1550   | 18×20 | 1600   | 18×25   | 2000   |         |        |         |        |
| 6800                           | 16×20   | 1550   | 18×20   | 1650   | 18×25 | 2050   |         |        |         |        |         |        |
| 10000                          | 18×20   | 1700   | 18×25   | 2150   |       |        |         |        |         |        |         |        |

[illegible]