

ZLG シリーズ  
SERIES

105℃ 超低インピーダンス品  
105℃ Ultra Low Impedance

・105℃ 1000～5000時間品。  
Load Life : 105℃ 1000～5000 hours.

RoHS  
compliance



◆規格表／SPECIFICATIONS

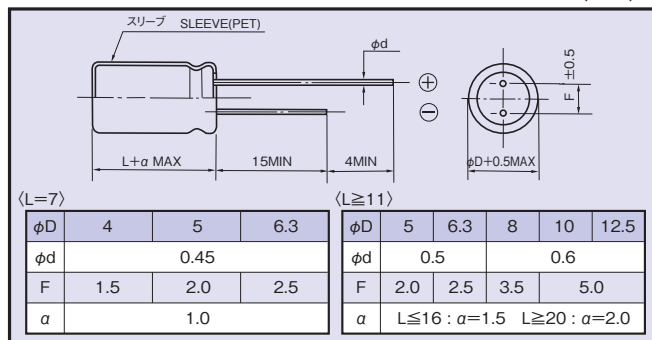
| 項 目                                 | Items                                                           | 特 性                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Characteristics                                           |                                     |                                                 |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
|-------------------------------------|-----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|-------------------------------------|-------------------------------------------------|----|----|----|----|-----------------------------------|----------------------------------------------------------|------|------|------|------|----------------------------|---------------------------------------------|----|----|---|---|---------------------|----------------------|-----|------|------|--------|------|-------|------|--------|------|---------|------|
| カ テ ゴ リ 温 度 範 囲                     | Category Temperature Range                                      | -40~+105℃                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                           |                                     |                                                 |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| 定 格 電 圧 範 囲                         | Rated Voltage Range                                             | 6.3~35Vdc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                           |                                     |                                                 |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| 静 電 容 量 許 容 差                       | Capacitance Tolerance                                           | ±20% (20℃,120Hz)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                           |                                     |                                                 |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| 漏 れ 電 流                             | Leakage Current(MAX)                                            | I=0.03CV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=0.03CV or 3μA whichever is greater. (After 2 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)                  | Dissipation Factor(MAX)                                         | <table><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>tanδ</td><td>0.22</td><td>0.19</td><td>0.16</td><td>0.14</td><td>0.12</td></tr></table> (20℃,120Hz)<br>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 capacitance is over 1000μF, tanδ shall be added 0.02 to the listed value with increase of every 1000μF.                                                                                                                                                                                                                                                                                                          |                                                           | 定格電圧(Vdc)<br>Rated Voltage          | 6.3                                             | 10 | 16 | 25 | 35 | tanδ                              | 0.22                                                     | 0.19 | 0.16 | 0.14 | 0.12 |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| 定格電圧(Vdc)<br>Rated Voltage          | 6.3                                                             | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 16                                                        | 25                                  | 35                                              |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| tanδ                                | 0.22                                                            | 0.19                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | 0.16                                                      | 0.14                                | 0.12                                            |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| 耐 久 性                               | Endurance                                                       | <table><tr><td>静 電 容 量 変 化 率<br/>Capacitance Change</td><td colspan="5">初期値の±25%以内<br/>Within ±25% of the initial value.</td></tr><tr><td>損 失 角 の 正 接<br/>Dissipation Factor</td><td colspan="5">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 colspan="5">規格値以下<br/>Not more than the specified value.</td></tr></table> <table><tr><td>ケースサイズ<br/>Case Size</td><td>時間(hrs)<br/>Life Time</td></tr><tr><td>L=7</td><td>1000</td></tr><tr><td rowspan="4">L≥11</td><td>φD≤6.3</td><td>2000</td></tr><tr><td>φD= 8</td><td>3000</td></tr><tr><td>φD= 10</td><td>4000</td></tr><tr><td>φD≥12.5</td><td>5000</td></tr></table> |                                                           | 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. |    |    |   |   | ケースサイズ<br>Case Size | 時間(hrs)<br>Life Time | L=7 | 1000 | L≥11 | φD≤6.3 | 2000 | φD= 8 | 3000 | φD= 10 | 4000 | φD≥12.5 | 5000 |
| 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.                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                           |                                     |                                                 |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| ケースサイズ<br>Case Size                 | 時間(hrs)<br>Life Time                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                           |                                     |                                                 |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| L=7                                 | 1000                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                           |                                     |                                                 |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| L≥11                                | φD≤6.3                                                          | 2000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                           |                                     |                                                 |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
|                                     | φD= 8                                                           | 3000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                           |                                     |                                                 |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
|                                     | φD= 10                                                          | 4000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                           |                                     |                                                 |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
|                                     | φD≥12.5                                                         | 5000                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                           |                                     |                                                 |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| 低 温 特 性                             | Low Temperature Stability<br>(インピーダンス比)<br>Impedance Ratio(MAX) | <table><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℃)/Z(20℃)</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>12</td><td>12</td><td>10</td><td>8</td><td>6</td></tr></table> (120Hz)                                                                                                                                                                                                                                                                                                                                                                                           |                                                           | 定格電圧(Vdc)<br>Rated Voltage          | 6.3                                             | 10 | 16 | 25 | 35 | Z(-25℃)/Z(20℃)                    | 2                                                        | 2    | 2    | 2    | 2    | Z(-40℃)/Z(20℃)             | 12                                          | 12 | 10 | 8 | 6 |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| 定格電圧(Vdc)<br>Rated Voltage          | 6.3                                                             | 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 16                                                        | 25                                  | 35                                              |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| Z(-25℃)/Z(20℃)                      | 2                                                               | 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | 2                                                         | 2                                   | 2                                               |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |
| Z(-40℃)/Z(20℃)                      | 12                                                              | 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 10                                                        | 8                                   | 6                                               |    |    |    |    |                                   |                                                          |      |      |      |      |                            |                                             |    |    |   |   |                     |                      |     |      |      |        |      |       |      |        |      |         |      |

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

| 周波数(Hz) Frequency |             | 120  | 1k   | 10k  | 100k≤ |
|-------------------|-------------|------|------|------|-------|
| 係数<br>Coefficient | 4.7~10uF    | 0.15 | 0.53 | 0.80 | 1.00  |
|                   | 22~47uF     | 0.18 | 0.70 | 0.90 | 1.00  |
|                   | 56~100uF    | 0.27 | 0.73 | 0.92 | 1.00  |
|                   | 120~270uF   | 0.49 | 0.73 | 0.92 | 1.00  |
|                   | 330~680uF   | 0.55 | 0.77 | 0.94 | 1.00  |
|                   | 820~1500uF  | 0.60 | 0.80 | 0.96 | 1.00  |
|                   | 2200~3900uF | 0.70 | 0.85 | 0.98 | 1.00  |

◆寸法図／DIMENSIONS

(mm)



◆呼称方法／PART NUMBER

|                       |                 |                     |                                  |               |                         |                     |
|-----------------------|-----------------|---------------------|----------------------------------|---------------|-------------------------|---------------------|
| □□□                   | ZLG             | □□□□□               | M                                | □□□           | □□                      | DXL                 |
| 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 |

◆副記号／OPTION

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

### ◆標準品一覧表／STANDARD SIZE

| 定格電圧<br>Rated Voltage<br>(Vdc) | 静電容量<br>Capacitance<br>( $\mu$ F) | 外形寸法<br>Size<br>$\phi$ D×L(mm) | 定格リプル電流<br>Rated ripple current<br>(mA r.m.s./105°C, 100kHz) | インピーダンス( $\Omega$ MAX)<br>Impedance |               |
|--------------------------------|-----------------------------------|--------------------------------|--------------------------------------------------------------|-------------------------------------|---------------|
|                                |                                   |                                |                                                              | 20°C, 100kHz                        | -10°C, 100kHz |
| 6.3                            | 33                                | 4×7                            | 230                                                          | 0.48                                | 1.6           |
|                                | 47                                | 5×7                            | 350                                                          | 0.26                                | 0.86          |
|                                | 100                               | 6.3×7                          | 480                                                          | 0.15                                | 0.50          |
|                                | 150                               | 5×11                           | 405                                                          | 0.15                                | 0.50          |
|                                | 330                               | 6.3×11                         | 760                                                          | 0.065                               | 0.19          |
|                                | 560                               | 8×11.5                         | 1000                                                         | 0.036                               | 0.11          |
|                                | 820                               | 8×16                           | 1250                                                         | 0.028                               | 0.083         |
|                                | 1000                              | 10×12.5                        | 1430                                                         | 0.027                               | 0.070         |
|                                | 1200                              | 8×20                           | 1600                                                         | 0.020                               | 0.056         |
|                                | 1200                              | 10×16                          | 1820                                                         | 0.020                               | 0.056         |
|                                | 1500                              | 10×20                          | 2180                                                         | 0.014                               | 0.033         |
|                                | 1500                              | 12.5×16                        | 2200                                                         | 0.018                               | 0.033         |
|                                | 2200                              | 10×23                          | 2360                                                         | 0.013                               | 0.030         |
|                                | 3300                              | 12.5×20                        | 2480                                                         | 0.013                               | 0.030         |
| 10                             | 3900                              | 12.5×25                        | 2900                                                         | 0.012                               | 0.024         |
|                                | 22                                | 4×7                            | 230                                                          | 0.49                                | 1.6           |
|                                | 33                                | 5×7                            | 350                                                          | 0.26                                | 0.86          |
|                                | 47                                | 5×7                            | 350                                                          | 0.26                                | 0.86          |
|                                | 100                               | 6.3×7                          | 480                                                          | 0.15                                | 0.50          |
|                                | 100                               | 5×11                           | 405                                                          | 0.15                                | 0.50          |
|                                | 220                               | 6.3×11                         | 760                                                          | 0.065                               | 0.19          |
|                                | 470                               | 8×11.5                         | 1000                                                         | 0.036                               | 0.11          |
|                                | 680                               | 8×16                           | 1250                                                         | 0.028                               | 0.083         |
|                                | 680                               | 10×12.5                        | 1430                                                         | 0.027                               | 0.070         |
|                                | 1000                              | 8×20                           | 1600                                                         | 0.020                               | 0.056         |
|                                | 1000                              | 10×16                          | 1820                                                         | 0.020                               | 0.056         |
|                                | 1200                              | 10×20                          | 2180                                                         | 0.014                               | 0.033         |
|                                | 1200                              | 12.5×16                        | 2200                                                         | 0.018                               | 0.033         |
| 16                             | 1500                              | 10×23                          | 2360                                                         | 0.013                               | 0.030         |
|                                | 2200                              | 12.5×20                        | 2480                                                         | 0.013                               | 0.030         |
|                                | 3300                              | 12.5×25                        | 2900                                                         | 0.012                               | 0.024         |
|                                | 22                                | 5×7                            | 350                                                          | 0.27                                | 0.89          |
|                                | 33                                | 5×7                            | 350                                                          | 0.26                                | 0.86          |
|                                | 47                                | 6.3×7                          | 480                                                          | 0.15                                | 0.50          |
|                                | 56                                | 5×11                           | 405                                                          | 0.15                                | 0.50          |
|                                | 120                               | 6.3×11                         | 760                                                          | 0.065                               | 0.19          |
|                                | 330                               | 8×11.5                         | 1000                                                         | 0.036                               | 0.11          |
|                                | 470                               | 8×16                           | 1250                                                         | 0.028                               | 0.083         |
|                                | 470                               | 10×12.5                        | 1430                                                         | 0.027                               | 0.070         |
|                                | 680                               | 8×20                           | 1600                                                         | 0.020                               | 0.056         |
|                                | 680                               | 10×16                          | 1820                                                         | 0.020                               | 0.056         |
|                                | 1000                              | 10×20                          | 2180                                                         | 0.014                               | 0.033         |
|                                | 1000                              | 12.5×16                        | 2200                                                         | 0.018                               | 0.033         |
|                                | 1200                              | 10×23                          | 2360                                                         | 0.013                               | 0.030         |
|                                | 1500                              | 12.5×20                        | 2480                                                         | 0.013                               | 0.030         |
|                                | 2200                              | 12.5×25                        | 2900                                                         | 0.012                               | 0.024         |
| 25                             | 10                                | 4×7                            | 230                                                          | 0.52                                | 1.7           |
|                                | 22                                | 5×7                            | 350                                                          | 0.27                                | 0.89          |
|                                | 33                                | 6.3×7                          | 480                                                          | 0.16                                | 0.53          |
|                                | 47                                | 6.3×7                          | 480                                                          | 0.15                                | 0.50          |
|                                | 47                                | 5×11                           | 405                                                          | 0.15                                | 0.50          |
|                                | 100                               | 6.3×11                         | 760                                                          | 0.065                               | 0.19          |
|                                | 220                               | 8×11.5                         | 1000                                                         | 0.036                               | 0.11          |
|                                | 330                               | 8×16                           | 1250                                                         | 0.028                               | 0.083         |
|                                | 330                               | 10×12.5                        | 1430                                                         | 0.027                               | 0.070         |
|                                | 470                               | 8×20                           | 1600                                                         | 0.020                               | 0.056         |
|                                | 470                               | 10×16                          | 1820                                                         | 0.020                               | 0.056         |
|                                | 680                               | 10×20                          | 2180                                                         | 0.014                               | 0.033         |
|                                | 680                               | 12.5×16                        | 2200                                                         | 0.018                               | 0.033         |
|                                | 820                               | 10×23                          | 2360                                                         | 0.013                               | 0.030         |
| 35                             | 1000                              | 12.5×20                        | 2480                                                         | 0.013                               | 0.030         |
|                                | 1500                              | 12.5×25                        | 2900                                                         | 0.012                               | 0.024         |
|                                | 4.7                               | 4×7                            | 230                                                          | 0.64                                | 2.1           |
|                                | 10                                | 5×7                            | 350                                                          | 0.33                                | 1.1           |
|                                | 22                                | 6.3×7                          | 480                                                          | 0.17                                | 0.56          |
|                                | 33                                | 6.3×7                          | 480                                                          | 0.16                                | 0.53          |
|                                | 33                                | 5×11                           | 405                                                          | 0.15                                | 0.50          |
|                                | 56                                | 6.3×11                         | 760                                                          | 0.065                               | 0.19          |
|                                | 150                               | 8×11.5                         | 1000                                                         | 0.036                               | 0.11          |
|                                | 220                               | 8×16                           | 1250                                                         | 0.028                               | 0.083         |
|                                | 220                               | 10×12.5                        | 1430                                                         | 0.027                               | 0.070         |
|                                | 270                               | 8×20                           | 1600                                                         | 0.020                               | 0.056         |
|                                | 330                               | 10×12.5                        | 1330                                                         | 0.039                               | 0.14          |
|                                | 330                               | 10×16                          | 1820                                                         | 0.020                               | 0.056         |
|                                | 470                               | 10×20                          | 2180                                                         | 0.014                               | 0.033         |
|                                | 470                               | 12.5×16                        | 2200                                                         | 0.018                               | 0.033         |
|                                | 560                               | 10×23                          | 2360                                                         | 0.013                               | 0.030         |
|                                | 680                               | 12.5×20                        | 2480                                                         | 0.013                               | 0.030         |
|                                | 1000                              | 12.5×25                        | 2900                                                         | 0.012                               | 0.024         |