

ZLG シリーズ  
SERIES

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

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



◆規格表 / SPECIFICATIONS

| 項目 Items   | 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  | 6.3~35Vdc   |                               |   |                     |                      |                              |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |
| 静電容量許容差<br>Capacitance Tolerance   | ±20% (20°C, 120Hz)  |                               |   |                     |                      |                              |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |
| 漏れ電流<br>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)<br>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)<br>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> <td>(20°C, 120Hz)</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> <td></td> </tr> </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 capacitance is over 1000µF, tanδ 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   | (20°C, 120Hz) | 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                   | (20°C, 120Hz)                |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |
| tanδ   | 0.22  | 0.19                          | 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(リップル重量)印加後、下記項目を満足すること。<br/>After applying rated voltage with rated ripple current for specified time at 105°C, the capacitors shall meet the following requirements.</p> <table border="1"> <tr> <td>静電容量変化率<br/>Capacitance Change</td> <td>初期値の±25%以内<br/>Within ±25% of the initial value.</td> <td>ケースサイズ<br/>Case Size</td> <td>時間(hrs)<br/>Life Time</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> <td>L=7</td> <td>1000</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> <td>φD≤6.3</td> <td>2000</td> </tr> <tr> <td></td> <td></td> <td>φD= 8</td> <td>3000</td> </tr> <tr> <td></td> <td></td> <td>φD= 10</td> <td>4000</td> </tr> <tr> <td></td> <td></td> <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. | ケースサイズ<br>Case Size | 時間(hrs)<br>Life Time | 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. | L=7           | 1000             | 漏れ電流<br>Leakage Current | 規格値以下<br>Not more than the specified value. | 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.   | ケースサイズ<br>Case Size           | 時間(hrs)<br>Life Time                            |                     |                      |                              |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |
| 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.  | L=7                           | 1000  |                     |                      |                              |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |
| 漏れ電流<br>Leakage Current  | 規格値以下<br>Not more than the specified value.   | φD≤6.3                        | 2000  |                     |                      |                              |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |
|  |   | φD= 8                         | 3000  |                     |                      |                              |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |
|  |   | φD= 10                        | 4000  |                     |                      |                              |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |
|  |   | φD≥12.5                       | 5000  |                     |                      |                              |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |
| 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> <td>(120Hz)</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> <td></td> </tr> <tr> <td>Z(-40°C)/Z(20°C)</td> <td>12</td> <td>12</td> <td>10</td> <td>8</td> <td>6</td> <td></td> </tr> </table>  | 定格電圧(Vdc)<br>Rated Voltage    | 6.3   | 10                  | 16                   | 25                           | 35   | (120Hz)       | Z(-25°C)/Z(20°C) | 2                       | 2   | 2      | 2    | 2    |  | Z(-40°C)/Z(20°C) | 12   | 12 | 10 | 8      | 6    |  |  |         |      |
| 定格電圧(Vdc)<br>Rated Voltage   | 6.3   | 10                            | 16  | 25                  | 35                   | (120Hz)                      |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |
| Z(-25°C)/Z(20°C)   | 2   | 2                             | 2   | 2                   | 2                    |                              |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |
| Z(-40°C)/Z(20°C)   | 12  | 12                            | 10  | 8                   | 6                    |                              |  |               |                  |                         |   |        |      |      |  |                  |      |    |    |        |      |  |  |         |      |

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

| 周波数 (Hz) Frequency | 120         | 1k   | 10k  | 100k≤ |      |
|--------------------|-------------|------|------|-------|------|
| 係数<br>Coefficient  | 4.7~10µF    | 0.15 | 0.53 | 0.80  | 1.00 |
|                    | 22~47µF     | 0.18 | 0.70 | 0.90  | 1.00 |
|                    | 56~100µF    | 0.27 | 0.73 | 0.92  | 1.00 |
|                    | 120~270µF   | 0.49 | 0.73 | 0.92  | 1.00 |
|                    | 330~680µF   | 0.55 | 0.77 | 0.94  | 1.00 |
|                    | 820~1500µF  | 0.60 | 0.80 | 0.96  | 1.00 |
|                    | 2200~3900µF | 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         |
| 3900                           | 12.5×25                           | 2900                           | 0.012  | 0.024                               |               |
| 10                             | 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         |
|                                | 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                               |               |
| 16                             | 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         |
| 1000                           | 12.5×20                           | 2480                           | 0.013  | 0.030                               |               |
| 1500                           | 12.5×25                           | 2900                           | 0.012  | 0.024                               |               |
| 35                             | 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                               |               |