

ZLQ series

105°C 3000~6000時間品 超小形化 低インピーダンス品
105°C 3000~6000 hours. UltraMiniaturized, Low Impedance



◆規格表/SPECIFICATIONS

| 項目 Item | 特性 Characteristics | | | | | | |
|--|---|--|------|------|------|---------------------|----------------------|
| カテゴリ温度範囲 Category Temperature Range | -40~+105°C | | | | | | |
| 定格電圧範囲 Rated Voltage Range | 6.3~35Vdc | | | | | | |
| 静電容量許容差 Capacitance Tolerance | ±20%(20°C, 120Hz) | | | | | | |
| 漏れ電流 Leakage Current (MAX) | I=0.03CV又は3µAのいずれか大なる値以下(定格電圧印加2分後) I=0.03CV or 3µA whichever is greater. (After 2 minutes) I=漏れ電流(µA) C=静電容量(µF) V=定格電圧(Vdc) Leakage Current Capacitance Rated Voltage | | | | | | |
| 損失角の正接(tan δ) Dissipation Factor (MAX) | 定格電圧(Vdc) Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | (20°C, 120Hz) |
| | tan δ | 0.22 | 0.19 | 0.16 | 0.14 | 0.12 | |
| 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。 When capacitance is over 1000µF, tan δ shall be added 0.02 to the listed value with increase of every 1000µF. | | | | | | | |
| 耐久性 Endurance | 105°C中で右表の時間定格電圧(リップル重畳)印加後、下記項目を満足すること。 After applying rated voltage with rated ripple current for specified time at 105°C, the capacitors shall meet the following requirements. | | | | | | |
| | 静電容量変化率 Capacitance Change | 初期値の±25%以内(6.3Vdc, 10Vdc: ±30%) Within ±25% of the initial value(6.3Vdc, 10Vdc: ±30%) | | | | ケースサイズ Case Size | 時間(hrs) Time(hrs) |
| | 損失角の正接 Dissipation Factor | 規格値の200%以下 Not more than 200% of the specified value. | | | | φD ≤ 6.3 | 3000 |
| | 漏れ電流 Leakage Current | 規格値以下 Not more than the specified value. | | | | φD = 8 | 4000 |
| 低温特性 Low Temperature Stability (インピーダンス比) Impedance Ratio (MAX) | 定格電圧(Vdc) Rated Voltage | 6.3 | 10 | 16 | 25 | 35 | (120Hz) |
| | Z(-25°C)/Z(+20°C) | 3 | 2 | 2 | 2 | 2 | |
| | Z(-40°C)/Z(+20°C) | 6 | 4 | 3 | 3 | 3 | |

◆呼称方法/PART NUMBER

ZLQ M D x L
 定格電圧 シリーズ名 静電容量 静電容量許容差 副記号 リード加工記号 ケースサイズ
 Rated Voltage Series Capacitance Capacitance Tolerance Option Lead Forming Case Size

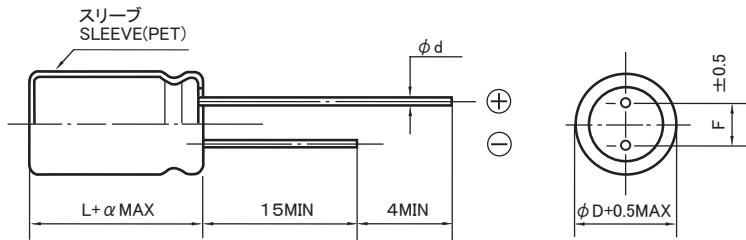
◆リップル電流補正係数/
MULTIPLIER FOR RIPPLE CURRENT

| 周波数(Hz) Frequency | 120 | 1k | 10k | 100k ≤ | |
|----------------------|--------------|------|------|--------|------|
| 係数 Coefficient | 56~270µF | 0.50 | 0.73 | 0.92 | 1.00 |
| | 330~680µF | 0.55 | 0.77 | 0.94 | 1.00 |
| | 820~1800µF | 0.60 | 0.80 | 0.96 | 1.00 |
| | 2200~12000µF | 0.70 | 0.85 | 0.98 | 1.00 |

◆副記号/OPTION

EFC : PETスリーブ PET Sleeve

◆寸法図／DIMENSIONS



| (mm) | | | | | | |
|------|------------------|-----|-----|-----|------|------------------|
| φD | 5 | 6.3 | 8 | 10 | 12.5 | 16 |
| φd | 0.5 | | 0.6 | | | 0.8 |
| F | 2.0 | 2.5 | 3.5 | 5.0 | | 7.5 |
| α | L ≤ 16 : α = 1.5 | | | | | L ≥ 20 : α = 2.0 |

◆標準品一覧表／STANDARD SIZE

Rated Ripple Current (mA r.m.s./105°C, 100kHz)

| 定格電圧 Rated Voltage (Vdc) | 静電容量 Capacitance (μF) | 外形寸法 Size φDxL (mm) | 定格リプル電流 Rated Ripple Current | インピーダンス (Ω MAX) Impedance | |
|--------------------------------|-----------------------------|---------------------------|---------------------------------|---------------------------------|---------------|
| | | | | 20°C, 100kHz | -10°C, 100kHz |
| 6.3 | 270 | 5×11 | 400 | 0.21 | 0.77 |
| | 680 | 6.3×11 | 620 | 0.092 | 0.34 |
| | 1200 | 8×11.5 | 1060 | 0.049 | 0.15 |
| | 1500 | 8×16 | 1390 | 0.038 | 0.12 |
| | 1800 | 10×12.5 | 1470 | 0.035 | 0.11 |
| | 2200 | 8×20 | 1660 | 0.027 | 0.081 |
| | 2700 | 10×16 | 1930 | 0.025 | 0.075 |
| | 3900 | 10×20 | 2130 | 0.018 | 0.054 |
| | 4700 | 10×25 | 2500 | 0.015 | 0.045 |
| | 5600 | 12.5×20 | 2690 | 0.016 | 0.041 |
| | 8200 | 12.5×25 | 3140 | 0.013 | 0.033 |
| | 8200 | 12.5×30 | 3680 | 0.012 | 0.030 |
| | 10000 | 16×20 | 3500 | 0.014 | 0.035 |
| | 10000 | 12.5×35 | 3800 | 0.010 | 0.025 |
| 12000 | 16×25 | 3880 | 0.011 | 0.028 | |
| 10 | 220 | 5×11 | 400 | 0.21 | 0.77 |
| | 470 | 6.3×11 | 620 | 0.092 | 0.34 |
| | 820 | 8×11.5 | 1060 | 0.049 | 0.15 |
| | 1200 | 8×16 | 1390 | 0.038 | 0.12 |
| | 1200 | 10×12.5 | 1470 | 0.035 | 0.11 |
| | 1800 | 8×20 | 1660 | 0.027 | 0.081 |
| | 1800 | 10×16 | 1930 | 0.025 | 0.075 |
| | 2700 | 10×20 | 2130 | 0.018 | 0.054 |
| | 3300 | 10×25 | 2500 | 0.015 | 0.045 |
| | 3900 | 12.5×20 | 2690 | 0.016 | 0.041 |
| | 5600 | 12.5×25 | 3140 | 0.013 | 0.033 |
| | 6800 | 12.5×30 | 3680 | 0.012 | 0.030 |
| | 6800 | 16×20 | 3500 | 0.014 | 0.035 |
| | 8200 | 12.5×35 | 3800 | 0.010 | 0.025 |
| 8200 | 16×25 | 3880 | 0.011 | 0.028 | |
| 16 | 150 | 5×11 | 400 | 0.21 | 0.77 |
| | 330 | 6.3×11 | 620 | 0.092 | 0.34 |
| | 560 | 8×11.5 | 1060 | 0.049 | 0.15 |
| | 820 | 8×16 | 1390 | 0.038 | 0.12 |
| | 820 | 10×12.5 | 1470 | 0.035 | 0.11 |
| | 1200 | 8×20 | 1660 | 0.027 | 0.081 |
| | 1200 | 10×16 | 1930 | 0.025 | 0.075 |
| | 1800 | 10×20 | 2130 | 0.018 | 0.054 |
| | 2200 | 10×25 | 2500 | 0.015 | 0.045 |
| | 2700 | 12.5×20 | 2690 | 0.016 | 0.041 |
| | 3900 | 12.5×25 | 3140 | 0.013 | 0.033 |
| | 3900 | 12.5×30 | 3680 | 0.012 | 0.030 |
| | 4700 | 16×20 | 3500 | 0.014 | 0.035 |
| | 5600 | 12.5×35 | 3800 | 0.010 | 0.025 |
| 5600 | 16×25 | 3880 | 0.011 | 0.028 | |

| 定格電圧 Rated Voltage (Vdc) | 静電容量 Capacitance (μF) | 外形寸法 Size φDxL (mm) | 定格リプル電流 Rated Ripple Current | インピーダンス (Ω MAX) Impedance | |
|--------------------------------|-----------------------------|---------------------------|---------------------------------|---------------------------------|---------------|
| | | | | 20°C, 100kHz | -10°C, 100kHz |
| 25 | 82 | 5×11 | 400 | 0.21 | 0.77 |
| | 180 | 6.3×11 | 620 | 0.092 | 0.34 |
| | 330 | 8×11.5 | 1060 | 0.049 | 0.15 |
| | 470 | 8×16 | 1390 | 0.038 | 0.12 |
| | 560 | 10×12.5 | 1470 | 0.035 | 0.11 |
| | 680 | 8×20 | 1660 | 0.027 | 0.081 |
| | 820 | 10×16 | 1930 | 0.025 | 0.075 |
| | 1200 | 10×20 | 2130 | 0.018 | 0.054 |
| | 1500 | 10×25 | 2500 | 0.015 | 0.045 |
| | 1800 | 12.5×20 | 2690 | 0.016 | 0.041 |
| | 2200 | 12.5×25 | 3140 | 0.013 | 0.033 |
| | 2700 | 12.5×30 | 3680 | 0.012 | 0.030 |
| | 2700 | 16×20 | 3500 | 0.014 | 0.035 |
| | 3300 | 12.5×35 | 3800 | 0.010 | 0.025 |
| 3900 | 16×25 | 3880 | 0.011 | 0.028 | |
| 35 | 56 | 5×11 | 400 | 0.21 | 0.77 |
| | 120 | 6.3×11 | 620 | 0.092 | 0.34 |
| | 220 | 8×11.5 | 1060 | 0.049 | 0.15 |
| | 270 | 8×16 | 1390 | 0.038 | 0.12 |
| | 330 | 10×12.5 | 1470 | 0.035 | 0.11 |
| | 390 | 8×20 | 1660 | 0.027 | 0.081 |
| | 470 | 10×16 | 1930 | 0.025 | 0.075 |
| | 680 | 10×20 | 2130 | 0.018 | 0.054 |
| | 820 | 10×25 | 2500 | 0.015 | 0.045 |
| | 1000 | 12.5×20 | 2690 | 0.016 | 0.041 |
| | 1500 | 12.5×25 | 3140 | 0.013 | 0.033 |
| | 1500 | 12.5×30 | 3680 | 0.012 | 0.030 |
| | 1800 | 16×20 | 3500 | 0.014 | 0.035 |
| | 2200 | 12.5×35 | 3800 | 0.010 | 0.025 |
| 2200 | 16×25 | 3880 | 0.011 | 0.028 | |