

ZLS series

105°C 6000時間品 小形化 低インピーダンス品
Load Life : 105°C 6000 hours. Miniaturized, 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 | 10~35Vdc | | | | | |
| 静電容量許容差 Capacitance Tolerance | ±20%(20°C, 120Hz) | | | | | |
| 漏れ電流 Leakage Current (MAX) | I=0.01CV以下(定格電圧印加2分後) I=0.01CV MAX. (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 | 10 | 16 | 25 | 35 | (20°C, 120Hz) |
| | tan δ | 0.19 | 0.16 | 0.14 | 0.12 | |
| 1000 µFを越えるものは1000 µF増す毎に上表の値に0.02を加えた値とする。 When capacitance is over 1000 µF, tan δ shall be added 0.02 to the listed value with increase of every 1000 µF. | | | | | | |
| 耐久性 Endurance | 105°C中で6000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 6000 hours 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(10V: ±30%) Within ±25% of the initial value.(10V: ±30%) | | | | |
| | 損失角の正接 Dissipation Factor | 規格値の200%以下 Not more than 200% of the specified value. | | | | |
| | 漏れ電流 Leakage Current | 規格値以下 Not more than the specified value. | | | | |
| 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 | 10 | 16 | 25 | 35 | (120Hz) |
| | Z(-25°C)/Z(+20°C) | 2 | 2 | 2 | 2 | |
| | Z(-40°C)/Z(+20°C) | 3 | 3 | 3 | 3 | |

◆呼称方法/PART NUMBER

ZLS 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

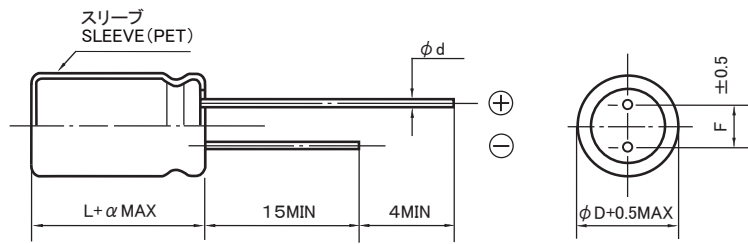
◆リップル電流補正係数/
MULTIPLIER FOR RIPPLE CURRENT

| 周波数(Hz) Frequency | 120 | 1k | 10k | 100k ≤ | |
|----------------------|--------------|------|------|--------|------|
| 係数 Coefficient | 220~270 µF | 0.50 | 0.73 | 0.92 | 1.00 |
| | 330~680 µF | 0.55 | 0.77 | 0.94 | 1.00 |
| | 820~1800 µF | 0.60 | 0.80 | 0.96 | 1.00 |
| | 2200~5600 µF | 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 | 8 | 10 | 12.5 |
| ϕd | 0.6 | | |
| F | 3.5 | 5.0 | |
| α | $L \leq 16 : \alpha = 1.5$ $L \geq 20 : \alpha = 2.0$ | | |

◆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 $\phi D \times L$ (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 |
| 10 | 680 | 8×11.5 | 900 | 0.062 | 0.19 |
| | 1000 | 8×16 | 1210 | 0.048 | 0.15 |
| | 1000 | 10×12.5 | 1240 | 0.045 | 0.14 |
| | 1500 | 8×20 | 1410 | 0.033 | 0.11 |
| | 1500 | 10×16 | 1650 | 0.032 | 0.10 |
| | 1800 | 10×20 | 1960 | 0.020 | 0.060 |
| | 2200 | 10×23 | 2250 | 0.018 | 0.054 |
| | 3300 | 12.5×20 | 2480 | 0.017 | 0.043 |
| | 3900 | 12.5×25 | 2900 | 0.015 | 0.038 |
| | 4700 | 12.5×30 | 3450 | 0.013 | 0.033 |
| 16 | 5600 | 12.5×35 | 3570 | 0.012 | 0.031 |
| | 470 | 8×11.5 | 900 | 0.062 | 0.19 |
| | 680 | 8×16 | 1210 | 0.048 | 0.15 |
| | 680 | 10×12.5 | 1240 | 0.045 | 0.14 |
| | 1000 | 8×20 | 1410 | 0.033 | 0.11 |
| | 1000 | 10×16 | 1650 | 0.032 | 0.10 |
| | 1500 | 10×20 | 1960 | 0.020 | 0.060 |
| | 1800 | 10×23 | 2250 | 0.018 | 0.054 |
| | 2200 | 10×25 | 2500 | 0.017 | 0.051 |
| | 2200 | 12.5×20 | 2480 | 0.017 | 0.043 |
| | 2700 | 12.5×25 | 2900 | 0.015 | 0.038 |
| | 3300 | 12.5×30 | 3450 | 0.013 | 0.033 |
| | 3900 | 12.5×35 | 3570 | 0.012 | 0.031 |
| 25 | 330 | 8×11.5 | 900 | 0.062 | 0.19 |
| | 390 | 8×16 | 1210 | 0.048 | 0.15 |
| | 470 | 10×12.5 | 1240 | 0.045 | 0.14 |
| | 560 | 8×20 | 1410 | 0.033 | 0.11 |
| | 680 | 10×16 | 1650 | 0.032 | 0.10 |
| | 820 | 10×20 | 1960 | 0.020 | 0.060 |
| | 1000 | 10×20 | 1960 | 0.020 | 0.060 |
| | 1000 | 10×23 | 2250 | 0.018 | 0.054 |
| | 1500 | 12.5×20 | 2480 | 0.017 | 0.043 |
| | 1800 | 12.5×25 | 2900 | 0.015 | 0.038 |
| | 2200 | 12.5×30 | 3450 | 0.013 | 0.033 |
| | 2700 | 12.5×35 | 3570 | 0.012 | 0.031 |
| 35 | 220 | 8×11.5 | 900 | 0.062 | 0.19 |
| | 270 | 8×16 | 1210 | 0.048 | 0.15 |
| | 330 | 10×12.5 | 1240 | 0.045 | 0.14 |
| | 390 | 8×20 | 1410 | 0.033 | 0.11 |
| | 470 | 10×16 | 1650 | 0.032 | 0.100 |
| | 560 | 10×20 | 1960 | 0.020 | 0.060 |
| | 680 | 10×23 | 2250 | 0.018 | 0.054 |
| | 1000 | 12.5×20 | 2480 | 0.017 | 0.043 |
| | 1200 | 12.5×25 | 2900 | 0.015 | 0.038 |
| | 1500 | 12.5×30 | 3450 | 0.013 | 0.033 |
| | 1800 | 12.5×35 | 3570 | 0.012 | 0.031 |