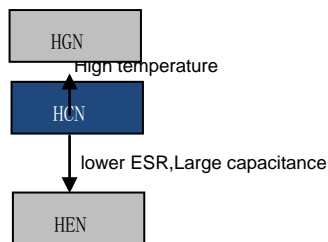


- Standard 105°C,2000 hours
- Low ESR,high ripple current capability
- Applications:DC/DC Converter,Switching Power Supply, Back up Power Supplies for CPU etc.
- ROHS Compliant



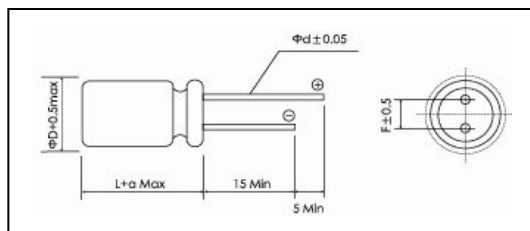
| Items | Characteristics |
|---|--|
| Operating Temperature Range (°C) | -55 ~+105 |
| Voltage Range (V) | 2.5 ~ 35 |
| Capacitance Range (μF) (20°C, 120Hz) | 10~1500 |
| Capacitance Tolerance (20°C, 120Hz) | ± 20% |
| Surge Voltage | URX1.15 |
| Leakage Current (μA) ※1 | Please see the attached ratings list (20°C, 2min) |
| Dissipation Factor (20°C, 120Hz) | Please see the attached ratings list |
| Equivalent Series Resistance(20°C, 100kHz) | Please see the attached ratings list |
| Temperature Characteristics (Max Impedance Ratio at 100kHz) | $Z(+105^{\circ}\text{C})/Z(+20^{\circ}\text{C}) \leq 1.25$ $Z(-55^{\circ}\text{C}) / Z(+20^{\circ}\text{C}) \leq 1.25$ |
| Endurance | 2000h, Rated voltage applied at 105°C Capacitance change: within ± 20% of the Initial measured value Dissipation Factor (Tan δ): ≤150% of initial specified value ESR: ≤150% of initial specified value DC Leakage Current: ≤the initial specified value |
| Damp heat(Steady state) | 1000h, No-applied voltage 60°C ,90-95% RH Capacitance change: within ± 20% of the initial measured value Dissipation Factor (Tan δ): ≤150% of initial specified value ESR: ≤150% of initial specified value DC Leakage Current: ≤the initial specified value (after voltage processing) |
| Resistance to soldering heat | Flow method (260 ± 5°C x 10s) Capacitance change: within ± 5% of the initial measured value Dissipation Factor (Tan δ): ≤the initial specified value ESR: ≤the initial specified value DC Leakage Current: ≤the initial specified value (after voltage processing) |

※1 In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 105°C.

Dimensions

mm

(unit:mm)



| Size Code | ΦD±0.5 | L | amax | F±0.5 | Φd±0.05 |
|-----------|--------|------|------|-------|---------|
| F08 | 6.3 | 8 | 1.0 | 2.5 | 0.6 |
| F10 | 6.3 | 10 | 0.5 | 2.5 | 0.6 |
| B08 | 8.0 | 8 | 1.0 | 3.5 | 0.6 |
| BAB | 8.0 | 11.5 | 1.5 | 3.5 | 0.6 |
| CAC | 10.0 | 12.5 | 1.5 | 5.0 | 0.6 |

Size List

| UR [S.V] (V) | 2.5 [2.9] | 4 [4.6] | 6.3 [7.2] | 10 [12] | 16 [18] | 20 [23] | 25 [29] | 35 [40] |
|--------------|-----------|---------|-----------|---------|-------------|---------|---------|---------|
| 10 | | | | | | | F08 | B08 |
| 15 | | | | | | | F10 | |
| 18 | | | | | | | | BAB |
| 22 | | | | | | | B08 | |
| 33 | | | | | | F10 | BAB | CAC |
| 47 | | | | F10 | | B08 | BAB | |
| 56 | | | | | | | CAC | |
| 68 | | | | F10 | | | BAB | |
| 100 | | | | F10 | F10.BAB | BAB.CAC | CAC | |
| 150 | | | | F10 | B08.BAB.CAC | CAC | | |
| 180 | | | | | BAB | | | |
| 220 | | | F10 | F10.CAC | B08.BAB | | | |
| 270 | | F10 | | BAB | CAC | | | |
| 330 | | | F10 | BAB | CAC | | | |
| 390 | F10 | F10 | BAB | | | | | |
| 470 | | | BAB | CAC | | | | |
| 560 | | BAB | | CAC | | | | |
| 680 | BAB | | CAC | | | | | |
| 820 | BAB | CAC | CAC | | | | | |
| 1000 | | CAC | CAC | | | | | |
| 1200 | CAC | CAC | | | | | | |
| 1500 | CAC | | | | | | | |

Ratings for HCN Series

| U _R Code | Rated Capacitance 20°C, 120Hz | Max ESR 20°C, 100kHz | Rated Ripple Current 105°C, 100kHz | Dissipation Factor 20°C, 120Hz | Leakage Current 20°C, 2min | Size ΦD×L | P/N |
|------------------------|----------------------------------|----------------------------|---------------------------------------|-----------------------------------|-------------------------------|--------------|-------------------|
| (v) | (μF) | (mΩ) | (mArms) | (%) | (μA) | (mm) | - |
| 2.5 0E | 390 | 20 | 3,200 | 8 | 195.0 | 6.3x10 | PCR0ECN391MF10□□ |
| | 680 | 10 | 5,230 | 12 | 340.0 | 8x11.5 | PCR0ECN681MB AB□□ |
| | 820 | 10 | 5,230 | 12 | 410.0 | 8X11.5 | PCR0ECN821MBAB□□ |
| | 1,200 | 8 | 5,500 | 12 | 600.0 | 10x12.5 | PCR0ECN122MCAC□□ |
| | 1,500 | 8 | 5,500 | 12 | 750.0 | 10x12.5 | PCR0ECN152MCAC□□ |
| 4 0G | 270 | 20 | 3,200 | 8 | 216.0 | 6.3x10 | PCR0GCN271MF10□□ |
| | 390 | 20 | 3,300 | 8 | 312.0 | 6.3X10 | PCR0GCN391MF10□□ |
| | 560 | 10 | 5,230 | 12 | 448.0 | 8x11.5 | PCR0GCN561MBAB□□ |
| | 820 | 8 | 5,500 | 12 | 656.0 | 10x12.5 | PCR0GCN821MCAC□□ |
| | 1,000 | 8 | 5,500 | 12 | 800.0 | 10x12.5 | PCR0GCN102MCAC□□ |
| | 1,200 | 8 | 5,500 | 12 | 960.0 | 10X12.5 | PCR0GCN122MCAC□□ |
| 6.3 0J | 220 | 20 | 3,200 | 8 | 277.2 | 6.3X10 | PCR0JCN221MF10□□ |
| | 330 | 20 | 3,300 | 8 | 415.8 | 6.3x10 | PCR0JCN331MF10□□ |
| | 390 | 12 | 4,770 | 12 | 491.4 | 8x11.5 | PCR0JCN391MB AB□□ |
| | 470 | 12 | 4,770 | 12 | 592.2 | 8x11.5 | PCR0JCN471MBAB□□ |
| | 680 | 10 | 5,500 | 12 | 642.6 | 10x12.5 | PCR0JCN681MCAC□□ |
| | 820 | 10 | 5,500 | 12 | 774.9 | 10x12.5 | PCR0JCN821MCAC□□ |
| | 1,000 | 10 | 5,500 | 12 | 945.0 | 10x12.5 | PCR0JCN102MCAC□□ |
| | 10 1A | 47 | 25 | 2,900 | 8 | 94.0 | 6.3X10 |
| 68 | | 25 | 2,900 | 8 | 136.0 | 6.3X10 | PCR1ACN680MF10□□ |
| 100 | | 25 | 2,900 | 8 | 200.0 | 6.3x10 | PCR1ACN101MF10□□ |
| 150 | | 25 | 2,900 | 8 | 300.0 | 6.3x10 | PCR1ACN151MF10□□ |
| 220 | | 25 | 2,900 | 12 | 440.0 | 6.3X10 | PCR1ACN221MF10□□ |
| 270 | | 14 | 4,420 | 12 | 540.0 | 8X11.5 | PCR1ACN271MBAB□□ |
| 330 | | 14 | 4,420 | 12 | 660.0 | 8x11.5 | PCR1ACN331MBAB□□ |
| 220 | | 10 | 5,500 | 12 | 330.0 | 10x12.5 | PCR1ACN221MCAC□□ |
| 470 | | 10 | 5,500 | 12 | 705.0 | 10x12.5 | PCR1ACN471MCAC□□ |
| 560 | | 12 | 5,300 | 12 | 840.0 | 10x12.5 | PCR1ACN561MCAC□□ |
| 16 1C | 100 | 24 | 2,900 | 8 | 320.0 | 6.3x10 | PCR1CCN101MF10□□ |
| | 150 | 16 | 4,000 | 12 | 480.0 | 8x8 | PCR1CCN151MB08□□ |
| | 220 | 16 | 4,000 | 12 | 704.0 | 8X8 | PCR1CCN221MB08□□ |
| | 100 | 16 | 4,360 | 12 | 320.0 | 8X11.5 | PCR1CCN101MBAB□□ |
| | 150 | 16 | 4,360 | 12 | 480.0 | 8x11.5 | PCR1CCN151MBAB□□ |
| | 180 | 16 | 4,360 | 12 | 576.0 | 8x11.5 | PCR1CCN181MBAB□□ |
| | 220 | 16 | 4,360 | 12 | 704.0 | 8x11.5 | PCR1CCN221MBAB□□ |
| | 150 | 10 | 5,500 | 12 | 360.0 | 10x12.5 | PCR1CCN151MCAC□□ |
| | 270 | 14 | 5,050 | 12 | 648.0 | 10x12.5 | PCR1CCN271MCAC□□ |
| | 330 | 14 | 5,050 | 12 | 792.0 | 10x12.5 | PCR1CCN331MCAC□□ |
| 20 1D | 33 | 48 | 2,200 | 6 | 132.0 | 6.3x10 | PCR1DCN330MF10□□ |
| | 47 | 30 | 2,800 | 12 | 188.0 | 8X8 | PCR1DCN470MB08□□ |
| | 100 | 24 | 3,320 | 12 | 400.0 | 8x11.5 | PCR1DCN101MBAB□□ |
| | 100 | 20 | 4,320 | 12 | 400.0 | 10x12.5 | PCR1DCN101MCAC□□ |
| | 150 | 20 | 4,320 | 12 | 600.0 | 10x12.5 | PCR1DCN151MCAC□□ |
| 25 1E | 10 | 50 | 2,000 | 12 | 50.0 | 6.3x8 | PCR1ECN100MF08□□ |
| | 15 | 48 | 2,200 | 6 | 75.0 | 6.3x10 | PCR1ECN150MF10□□ |
| | 22 | 30 | 2,800 | 12 | 110.0 | 8x8 | PCR1ECN220MB08□□ |
| | 33 | 24 | 3,600 | 12 | 165.0 | 8x11.5 | PCR1ECN330MBAB□□ |
| | 47 | 24 | 3,320 | 12 | 235.0 | 8x11.5 | PCR1ECN470MBAB□□ |
| | 68 | 24 | 3,320 | 12 | 340.0 | 8x11.5 | PCR1ECN680MBAB□□ |
| | 56 | 20 | 3,800 | 12 | 280.0 | 10x12.5 | PCR1ECN560MCAC□□ |
| | 100 | 20 | 4,320 | 12 | 500.0 | 10x12.5 | PCR1ECN101MCAC□□ |
| 35 1V | 10 | 50 | 2,300 | 12 | 175.0 | 8X8 | PCR1VCN100MB08□□ |
| | 18 | 34 | 2,830 | 12 | 315.0 | 8X11.5 | PCR1VCN180MBAB□□ |
| | 33 | 30 | 3,270 | 12 | 577.5 | 10x12.5 | PCR1VCN330MCAC□□ |

Frequency coefficient for ripple current

| Frequency | $120\text{Hz} \leq f < 1\text{kHz}$ | $1\text{kHz} \leq f < 10\text{kHz}$ | $10\text{kHz} \leq f < 100\text{kHz}$ | $100\text{kHz} \leq f < 500\text{kHz}$ |
|-------------|-------------------------------------|-------------------------------------|---------------------------------------|--|
| Coefficient | 0.05 | 0.3 | 0.7 | 1 |