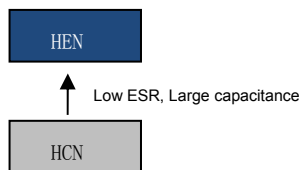


- Low ESR, Large Capacitance 105°C, 2000 hours.
- Ultra Low ESR, high ripple current capability
- Applications: DC/DC Converter, Switching Power Supply, Back up Power Supplies for CPU etc.
- RoHS Compliant



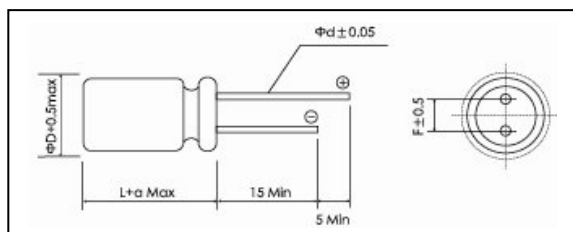
Items	Characteristics
Operating Temperature Range (°C)	-55 ~ +105
Voltage Range (V)	2.5 ~ 16
Capacitance Range (μF) (20°C, 120Hz)	180~2700
Capacitance Tolerance (20°C, 120Hz)	± 20%
Surge Voltage	UR x 1.15
Leakage Current (μA) ※1	Please see the attached ratings list (20°C, 2min)
Dissipation Factor (20°C, 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	<b>2000h, Rated voltage applied at 105°C</b> 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)	<b>1000h, No-applied voltage 60°C, 90~95% RH</b> 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	<b>Flow method (260 ± 5°C x 10s)</b> 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
BAB	8.0	11.5	1.5	3.5	0.6
C10	10.0	10.0	1.0	5.0	0.6
CAC	10.0	12.5	1.5	5.0	0.6

## Size List

UR [S.V] (V) Cap.(μF)	2.5 [2.9]	4 [4.6]	6.3 [7.2]	10 [12]	16 [18]
180					BAB
270				BAB	BAB
330			BAB		BAB, CAC
390			BAB	BAB	
470			BAB	BAB, CAC	CAC
560		BAB	BAB	BAB, CAC	CAC
680	BAB	BAB	BAB, CAC	BAB, CAC	CAC
820	BAB	BAB, CAC	BAB, CAC		CAC
1,000	BAB, CAC	BAB, CAC	BAB, CAC	CAC	CAC
1,200	CAC	BAB, CAC			
1,500	BAB, CAC		CAC		
1,800		CAC			
2,200		CAC			
2,700	CAC				

## Ratings for HEN Series

U <sub>R</sub> 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	680	7	5700	8	340.0	8x11.5	PCR0EEN681MBAB□□
	820	7	6100	8	410.0	8x11.5	PCR0EEN821MBAB□□
	1000	7	6100	8	500.0	8x11.5	PCR0EEN102MBAB□□
	1500	7	6100	8	750.0	8x11.5	PCR0EEN152MBAB□□
	1.000	6	6640	8	500.0	10x12.5	PCR0EEN102MCAC□□
	1200	6	6640	8	600.0	10x12.5	PCR0EEN122MCAC□□
	1500	7	6100	8	750.0	10x12.5	PCR0EEN152MCAC□□
	2700	7	6100	8	1350.0	10x12.5	PCR0EEN272MCAC□□
4 0G	560	7	6100	8	448.0	8x11.5	PCR0GEN561MBAB□□
	680	7	6100	8	544.0	8x11.5	PCR0GEN681MBAB□□
	820	7	6100	8	656.0	8x11.5	PCR0GEN821MBAB□□
	1000	7	6100	8	800.0	8x11.5	PCR0GEN102MBAB□□
	1200	7	6100	8	960.0	8x11.5	PCR0GEN122MBAB□□
	820	6	6640	8	656.0	10x12.5	PCR0GEN821MCAC□□
	1000	6	6640	8	800.0	10x12.5	PCR0GEN102MCAC□□
	1200	7	6100	8	960.0	10x12.5	PCR0GEN122MCAC□□
	1800	7	6100	8	1440.0	10x12.5	PCR0GEN182MCAC□□
2200	7	6100	8	1760.0	10x12.5	PCR0GEN222MCAC□□	
6.3 0J	330	7	5700	8	415.8	8x11.5	PCR0JEN331MBAB□□
	390	7	5700	8	491.4	8x11.5	PCR0JEN391MBAB□□
	470	7	5700	8	592.2	8x11.5	PCR0JEN471MBAB□□
	560	7	5700	8	705.6	8x11.5	PCR0JEN561MBAB□□
	680	7	5700	8	856.8	8x11.5	PCR0JEN681MBAB□□
	820	7	5700	8	1033.2	8x11.5	PCR0JEN821MBAB□□
	1000	7	5700	8	1260.0	8x11.5	PCR0JEN102MBAB□□
	1500	7	5700	8	1890.0	8x11.5	PCR0JEN152MBAB□□
	680	7	6640	8	856.8	10x12.5	PCR0JEN681MCAC□□
	820	7	6640	8	1033.2	10x12.5	PCR0JEN821MCAC□□
	1000	7	6100	8	1260.0	10x12.5	PCR0JEN102MCAC□□
	1500	10	5560	8	1890.0	10x12.5	PCR0JEN152MCAC□□
2200	10	5560	8	2772.0	10x12.5	PCR0JEN222MCAC□□	
10 1A	270	8	5650	8	540.0	8x11.5	PCR1AEN271MBAB□□
	390	8	5650	8	780.0	8x11.5	PCR1AEN391MBAB□□
	470	8	5650	8	940.0	8x11.5	PCR1AEN471MBAB□□
	560	8	5650	8	1120.0	8x11.5	PCR1AEN561MBAB□□
	680	8	5650	8	1360.0	8x11.5	PCR1AEN681MBAB□□
	470	7	6100	8	940.0	10x12.5	PCR1AEN471MCAC□□
	560	7	6100	8	1120.0	10x12.5	PCR1AEN561MCAC□□
	680	7	6100	8	1360.0	10x12.5	PCR1AEN681MCAC□□
	1000	8	6100	8	2000.0	10x12.5	PCR1AEN102MCAC□□
	16 1C	180	11	5100	8	576.0	8x11.5
270		10	5100	8	864.0	8x11.5	PCR1CEN271MBAB□□
330		10	5100	8	1056.0	8x11.5	PCR1CEN331MBAB□□
330		10	6100	8	1056.0	10x12.5	PCR1CEN331MC09□□
470		10	6100	8	1504.0	10x12.5	PCR1CEN471MCAC□□
560		10	6100	12	1792.0	10x12.5	PCR1CEN561MCAC□□
680		10	6100	12	2176.0	10x12.5	PCR1CEN681MCAC□□
820		10	6100	12	2624.0	10x12.5	PCR1CEN821MCAC□□
1000		10	6100	12	3200.0	10x12.5	PCR1CEN102MCAC□□

Customer products are available on request.

### Frequency coefficient for ripple current

Frequency	120Hz ≤ f < 1kHz	1kHz ≤ f < 10kHz	10kHz ≤ f < 100kHz	100kHz ≤ f < 500kHz
Coefficient	0.05	0.3	0.7	1

