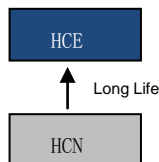


- Long Life 105°C,3000 hours
- Low ESR,high ripple current capability
- Applications:DC/DC Converter,Switching Power Supply, Back up Power Supplies for CPU etc.
- ROHS Compliant



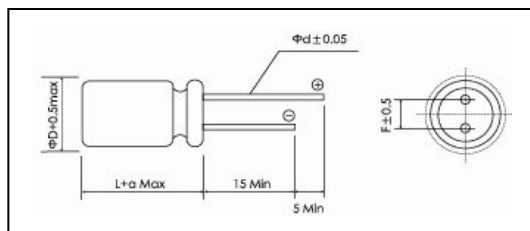
Items	Characteristics
Operating Temperature Range (°C)	-55 ~+105
Voltage Range (V)	2.5 ~ 35
Capacitance Range (μF) (20°C, 120Hz)	10~1500
Capacitance Tolerance (20°C, 120Hz)	± 20%
Surge Voltage	URX1.15
Leakage Current (μA) ※1	Please see the attached ratings list (20°C, 2min)
Dissipation Factor (20°C, 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	<b>3000h, 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
B06	8.0	6.7	0.3	3.5	0.45
BAB	8.0	11.5	1.5	3.5	0.6
C07	10.0	7	1.0	5.0	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]
Cap.(μF)							
10							B06
22							B06.C07
33						B06	BAB
39						B06	
47						B06	
56						C07	CAC
68						C07	BAB
82					B06	C07	
100					BAB	BAB.C07.CAC	CAC
120				B06			
150			B06		C07.CAC	CAC	
180					BAB		
220		B06		CAC	BAB		
270				BAB.C07	CAC		
330		B06	C07	BAB	CAC		
390			BAB				
470		C07	BAB	CAC			
560		BAB		CAC			
680	BAB	C07	CAC				
820	BAB	CAC	CAC				
1,000		CAC	CAC				
1,200	CAC	CAC					
1,500	CAC						

## Ratings for HCE 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	10	5,230	12	340.0	8x11.5	PCR0ECE681MBAB□□
	820	10	5,230	12	410.0	8x11.5	PCR0ECE821MBAB□□
	1,200	8	5,500	12	600.0	10x12.5	PCR0ECE122MCAC□□
	1,500	8	5,500	12	750.0	10x12.5	PCR0ECE152MCAC□□
4 0G	220	35	2,560	12	176.0	8x6.7	PCR0GCE221MB06□□
	330	35	2,560	12	264.0	8x6.7	PCR0GCE331MB06□□
	560	10	5,230	12	448.0	8X11.5	PCR0GCE561MBAB□□
	470	25	3,700	12	376.0	10x7	PCR0GCE471MC07□□
	680	25	3,700	12	544.0	10x7	PCR0GCE681MC07□□
	820	8	5,500	12	656.0	10x12.5	PCR0GCE821MCAC□□
	1,000	8	5,500	12	800.0	10x12.5	PCR0GCE102MCAC□□
6.3 0J	150	35	2,560	12	189.0	8x6.7	PCR0JCE151MB06□□
	390	12	4,770	12	491.4	8x11.5	PCR0JCE391MBAB□□
	470	12	4,770	12	592.2	8x11.5	PCR0JCE471MBAB□□
	330	25	3,700	12	415.8	10x7	PCR0JCE331MC07□□
	680	10	5,500	12	642.6	10x12.5	PCR0JCE681MCAC□□
	820	10	5,500	12	774.9	10x12.5	PCR0JCE821MCAC□□
	1,000	10	5,500	12	945.0	10x12.5	PCR0JCE102MCAC□□
10 1A	120	35	2,560	12	240.0	8x6.7	PCR1ACE121MB06□□
	270	14	4,420	12	540.0	8X11.5	PCR1ACE271MBAB□□
	330	14	4,420	12	660.0	8x11.5	PCR1ACE331MBAB□□
	270	25	3,700	12	540.0	10x7	PCR1ACE271MC07□□
	220	10	5,500	12	330.0	10x12.5	PCR1ACE221MCAC□□
	470	10	5,500	12	705.0	10x12.5	PCR1ACE471MCAC□□
16 1C	82	40	2,120	12	262.4	8X6.7	PCR1CCE820MB06□□
	100	16	4,360	12	320.0	8X11.5	PCR1CCE101MBABC□□
	180	16	4,360	12	576.0	8x11.5	PCR1CCE181MBABC□□
	220	16	4,360	12	704.0	8x11.5	PCR1CCE221MBABC□□
	150	30	3,020	12	480.0	10x7	PCR1CCE151MC07□□
	150	10	5,500	12	360.0	10x12.5	PCR1CCE151MCAC□□
	270	14	5,050	12	648.0	10x12.5	PCR1CCE271MCAC□□
20 1D	330	14	5,050	12	792.0	10x12.5	PCR1CCE331MCAC□□
	33	45	2,000	12	132.0	8X6.7	PCR1DCE330MB06□□
	39	45	2,000	12	156.0	8x6.7	PCR1DCE390MB06□□
	47	45	2,000	12	188.0	8x6.7	PCR1DCE470MB06□□
	100	24	3,320	12	400.0	8X11.5	PCR1DCE101MBAB□□
	56	40	2,400	12	224.0	10x7	PCR1DCE560MC07□□
	68	40	2,600	12	272.0	10x7	PCR1DCE680MC07□□
	82	40	2,600	12	328.0	10X7	PCR1DCE820MC07□□
	100	35	2,600	12	400.0	10x7	PCR1DCE101MC07□□
25 1E	100	20	4,320	12	400.0	10x12.5	PCR1DCE101MCAC□□
	150	20	4,320	12	600.0	10X12.5	PCR1DCE151MCAC□□
	10	60	1,500	10	125.0	8X6.7	PCR1ECE100MB06□□
	22	50	1,800	10	275.0	8x6.7	PCR1ECE220MB06□□
	33	24	3,600	12	165.0	8x11.5	PCR1ECE330MBAB□□
	68	24	3,320	12	340.0	8x11.5	PCR1ECE680MBAB□□
	22	50	2,000	10	275.0	10x7	PCR1ECE220MC07□□
25 1E	56	20	3,800	12	280.0	10x12.5	PCR1ECE560MCAC□□
	100	20	4,320	12	500.0	10x12.5	PCR1ECE101MCAC□□

Frequency coefficient for ripple current

Customer products are available on request.

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

