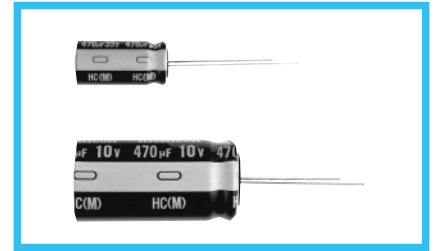


HC Low Impedance series



- Lower impedance than HD series.
- Compliant to the RoHS directive (2002/95/EC).

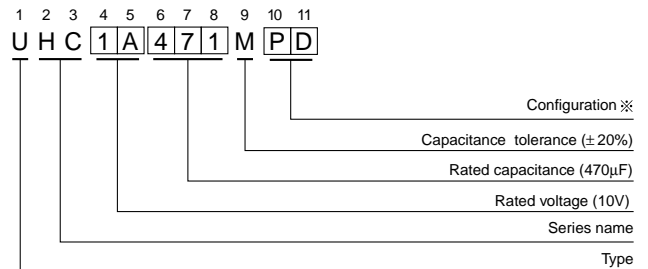
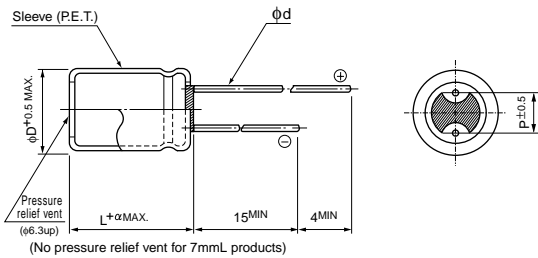


Specifications

Item	Performance Characteristics						
Category Temperature Range	-40 to +105°C						
Rated Voltage Range	6.3 to 35V						
Rated Capacitance Range	4.7 to 1000μF						
Capacitance Tolerance	±20% at 120Hz, 20°C						
Leakage Current	After 2 minutes' application of rated voltage, leakage current is less than 0.01CV or 3 (μA), whichever is greater.						
Tangent of loss angle (tan δ)	Rated voltage (V)	6.3	10	16	25	35	120Hz 20°C
	tan δ (MAX.)	0.15	0.13	0.12	0.10	0.10	
Stability at Low Temperature	Rated voltage (V)	6.3	10	16	25	35	120Hz
	Impedance ratio ZT / Z20 (MAX.)	Z=-40°C / Z+20°C	2	2	2	2	
Endurance	The specifications listed at right shall be met when the capacitors are restored to 20°C after D.C. bias plus rated ripple current is applied for 2000 hours (1000 hours for φD=4, 5 and 6.3) at 105°C, the peak voltage shall not exceed the rated voltage.						
	Capacitance change	Within ± 20% of the initial capacitance value					
	tan δ	200% or less than the initial specified value					
Marking	Printed with white color letter on black sleeve.						
	Leakage current	Less than or equal to the initial specified value					

Radial Lead Type

Type numbering system (Example : 10V 470μF)



α	(L = 7) 1.0
	(L ≥ 11) 1.5

	(mm)				
φD	4	5	6.3	8	10
P	1.5	2.0	2.5	3.5	5.0
φd	0.45	0.45	0.5 (0.45)	0.6	0.6

() : Applied to 7mmL products

※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
4	DD
5	
6.3 (7L)	ED
6.3 (11L)	
8 - 10	PD

- Please refer to page 20 about the end seal configuration.

Please refer to page 20, 21, 22 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.

• Dimension table in next page.

Standard Ratings

V (Code) Item Cap. (μF) Code		6.3 (0J)			10 (1A)			16 (1C)		
		Case size φ D × L (mm)	Impedance (Ω) MAX. 20°C / 100kHz	Rated ripple (mA rms) 105°C / 100kHz	Case size φ D × L (mm)	Impedance (Ω) MAX. 20°C / 100kHz	Rated ripple (mA rms) 105°C / 100kHz	Case size φ D × L (mm)	Impedance (Ω) MAX. 20°C / 100kHz	Rated ripple (mA rms) 105°C / 100kHz
22	220				4 × 7	0.49	230	5 × 7	0.26	350
33	330	4 × 7	0.48	230	5 × 7	0.26	350	5 × 7	0.26	350
47	470	5 × 7	0.26	350	5 × 7	0.26	350	6.3 × 7	0.15	480
100	101	6.3 × 7	0.15	480	6.3 × 7	0.15	480	6.3 × 11	0.078	640
220	221	6.3 × 11	0.077	640	8 × 11.5	0.044	910	8 × 11.5	0.044	910
330	331	8 × 11.5	0.043	910	8 × 11.5	0.043	910	10 × 12.5	0.030	1230
470	471	8 × 11.5	0.043	910	10 × 12.5	0.030	1230	10 × 16	0.025	1650
1000	102	10 × 16	0.024	1650						

V (Code) Item Cap. (μF) Code		25 (1E)			35 (1V)		
		Case size φ D × L (mm)	Impedance (Ω) MAX. 20°C / 100kHz	Rated ripple (mA rms) 105°C / 100kHz	Case size φ D × L (mm)	Impedance (Ω) MAX. 20°C / 100kHz	Rated ripple (mA rms) 105°C / 100kHz
4.7	4R7				4 × 7	0.64	230
10	100	4 × 7	0.52	230	5 × 7	0.33	350
22	220	5 × 7	0.27	350	6.3 × 7	0.17	480
33	330	6.3 × 7	0.16	480	6.3 × 7	0.16	480
47	470	6.3 × 7	0.15	480	6.3 × 11	0.089	640
100	101	6.3 × 11	0.078	640	8 × 11.5	0.048	910
220	221	10 × 12.5	0.031	1230	10 × 16	0.026	1650
330	331	10 × 16	0.026	1650			

Frequency coefficient of rated ripple current

Cap. (μF)	Frequency	120Hz	1kHz	10kHz	100kHz
4.7 to 33		0.40	0.68	0.90	1.00
47 to 330		0.47	0.75	0.95	1.00
470 to 1000		0.55	0.85	0.98	1.00