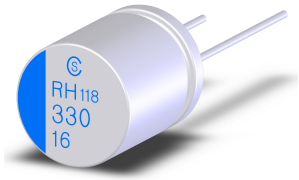
URH Series



- **2021 Change series code RH → URH**
- **Low ESR at a high frequency range**
- **High ripple current capability**
- **2,000 hours at 125°C**

◆ SPECIFICATIONS

Item	Performance Characteristics
Category Temperature Range	-55 ~ +125°C
Working Voltage Range	2.5 ~ 35Vdc
Surge Voltage	Rated Voltage x1.15
Capacitance Tolerance	M: ±20% (at 25°C and 120Hz)
ESR	See the standard ratings table (at 25°C, 100~300KHz)
Dissipation Factor (Tanδ)	See the standard ratings table (at 25°C, 120Hz)
Leakage Current ※1	See the standard ratings table (Impress the rated voltage for 2 minutes)
Low Temperature Characteristics Impedance Ratio	Z(-25°C)/Z(+25°C) ≤1.15 at 100KHz Z(-55°C)/Z(+25°C) ≤1.25 at 100KHz
Endurance	The following specifications shall be satisfied when the capacitors are restored to 25°C after subjected to DC voltage with the rated ripple current is applied for 2,000 hours at 125°C
Damp Heat (Steady State)	The following requirements shall be satisfied when the capacitor are restored to 25°C after exposing them for 1,000 hours at 60°C 90 to 95% RH

Endurance:

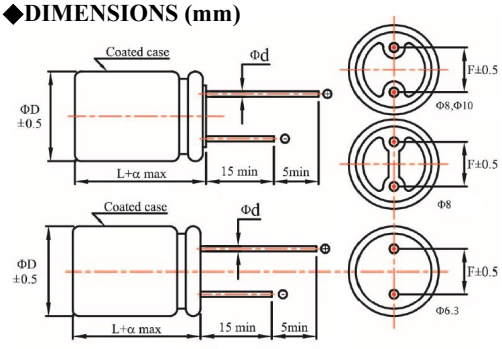
Capacitance change	≦ ±20% of the initial value
ESR	≦ 150% of the specified value
Dissipation factor(tanδ)	≦ 150% of the specified value
Leakage current	≦ specified value

Damp Heat (Steady State):

Capacitance change	≦ ±20% of the initial value
ESR	≦ 150% of the specified value
Dissipation factor(tanδ)	≦ 150% of the specified value
Leakage current	≦ specified value

※1 In case of some problems for measured values, measure after applying rated voltage for 120 minutes at105°C
※2 ESR should be measured at both of the terminal ends closest to the capacitor body

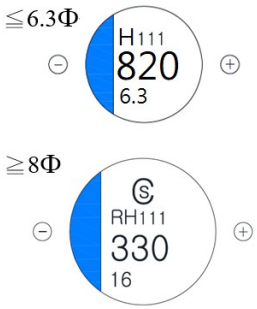
◆DIMENSIONS (mm)



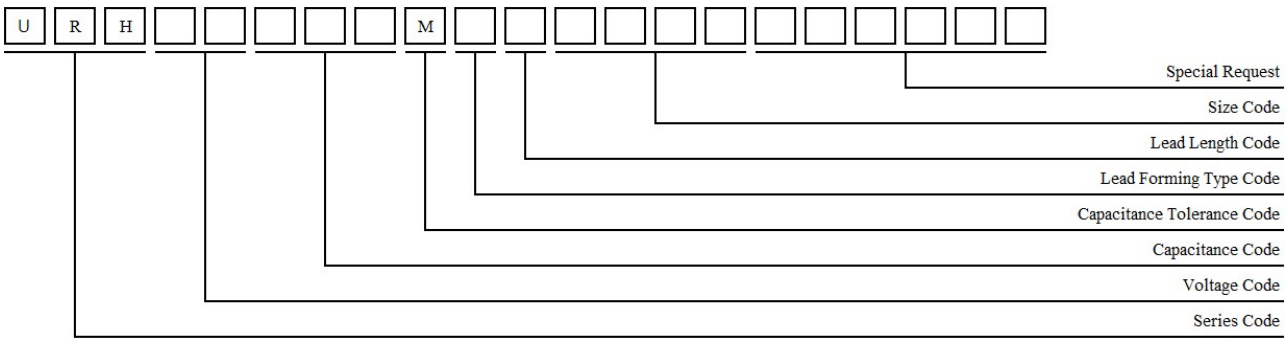
◆Lead

ΦD	6.3		8			10		
Φd	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
L	8	12	8	11	20	12	16	20
α	1	1.5	1	1.5	1.5	1.5	1.5	1.5
F	2.5	2.5	3.5	3.5	3.5	5	5	5

◆Marking



◆ PART NUMBER SYSTEM



URH Series

◆ **Standard Ratings**

Rated Voltage (Vdc)	Rated Capacitance (μF)	Case Size ΦD×L (mm)	ESR 100~300KHz (mΩ max)	Rated Ripple Current (mArms max)		Tan δ max	Leakage Current (μA max)	Part Number
				≦105℃	105~125℃			
2.5(0E)	680	8×11	13	4520	1430	0.12	340	URH0E681MNN0811U
	820	8×11	13	4520	1430	0.12	410	URH0E821MNN0811U
4(0G)	560	8×11	13	4520	1430	0.12	448	URH0G561MNN0811U
	680	8×11	13	4520	1430	0.12	544	URH0G681MNN0811U
	1200	10×12	12	5440	1720	0.12	960	URH0G122MNN1012U
6.3(0J)	470	8×11	13	4520	1430	0.12	592	URH0J471MNN0811U
	560	8×11	13	4520	1430	0.12	706	URH0J561MNN0811U
	820	6.3×8	13	4520	1430	0.12	1033	URH0J821MNN6308
	820	10×12	12	5440	1720	0.12	1033	URH0J821MNN1012U
10(1A)	120	8×8	35	2560	810	0.12	300	URH1A121MNN0808U
	330	8×11	16	3950	1250	0.12	660	URH1A331MNN0811U
	390	8×11	16	3950	1250	0.12	780	URH1A391MNN0811U
	560	10×12	13	5230	1655	0.12	1120	URH1A561MNN1012U
	1000	10×12	13	5230	1200	0.12	2000	URH1A102MNN1012U
16(1C)	82	8×8	35	2560	810	0.12	300	URH1C820MNN0808U
	150	8×8	35	2560	810	0.12	480	URH1C151MNN0808U
	180	8×11	18	3640	1150	0.12	576	URH1C181MNN0811U
	220	8×11	18	3640	1150	0.12	704	URH1C221MNN0811U
	270	8×11	18	3640	1150	0.12	864	URH1C271MNN0811U
	270	10×12	16	4720	1490	0.12	864	URH1C271MNN1012U
	330	10×12	16	4720	1490	0.12	1056	URH1C331MNN1012U
	390	10×12	16	4720	1490	0.12	1248	URH1C391MNN1012U
	470	10×12	16	4720	1490	0.12	1504	URH1C471MNN1012U
	470	10×12	9	6100	2240	0.12	1504	URH1C471MNN1012EU
	820	8×12	11	5600	1680	0.12	2624	URH1C821MNN0812U
	820	10×12	12	5400	1630	0.12	2624	URH1C821MNN1012U
	1200	10×12	12	6300	1890	0.12	3840	URH1C122MNN1012SU
	1500	8×20	12	6100	2240	0.12	4800	URH1C152MNN0820U
	1500	10×12	11	6300	1890	0.12	4800	URH1C152MNN1012U
	2200	10×20	15	6100	2250	0.12	3520	URH1C222MNN1020U
20(1D)	330	6.3×12	18	3640	1150	0.12	1320	URH1D331MNN6312
	470	8×11	16	4720	1490	0.12	1880	URH1D471MNN0811U
	820	10×16	16	4000	1300	0.12	3280	URH1D821MNN1016U
	1500	10×20	16	5000	1700	0.12	6000	URH1D152MNN1020U
25(1E)	100	8×8	24	2600	1040	0.12	500	URH1E101MNN0808U
	120	8×11	27	2300	890	0.12	600	URH1E121MNN0811U
	180	10×12	25	2800	1080	0.12	900	URH1E181MNN1012U
	330	8×11	25	2800	1080	0.12	1650	URH1E331MNN0811U
	470	10×12	14	4720	1490	0.12	2350	URH1E471MNN1012U
35(1V)	180	10×12	28	3650	1264	0.12	1260	URH1V181MNN1012U
	270	10×12	26	2700	800	0.12	1890	URH1V271MNN1012U

CONDUCTIVE POLYMER ALUMINUM SOLID CAPACITORS

PART NUMBER SYSTEM

♦ RADIAL LEAD TYPE

Series	Rated Voltage	Capacitance	Tolerance	Lead Forming Type	Lead Length	Case Dimension	Special Request
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
□□□	□□	□□□	□	□	□	□□□□	□□□□□□

(1) Series

Series											
	DIP	UPS	UPR	UUL	UPE	URP	URH	UGP	UGV	UGS	UPC
	SMD	VSG	VSP	VSU	VSE						

(2) Rated Voltage

Code	0E	0J	6K	7H	1A	1B	AG	1C	1D	1P	1E	1F	1V	1H	1J	2A
WV	2.5	6.3	6.8	7.5	10	12	14	16	20	22	25	30	35	50	63	100

(3) Capacitance

Code	6R8	100	180	560	101	181	561	102	182
μF	6.8	10	18	56	100	180	560	1000	1800

(4) Capacitance Tolerance

Code	J	Q	R	K	V	M	H
%	± 5	+30 / -10	+20 / -0	± 10	+20 / -10	± 20	+20 / -5

(5) Lead Type

Code	C	P
Description	Cutting	Taping
Drawing	Fig 1	Fig 2

(6) Lead Length (Cut / Formed lead)

Code	3	4	U	7	D	X	R	B	E	G	2	M	T	N
Length	3.5	4.5	5.5	7	4	2.3	2.5	2.8	3.1	3.3	2.5	3.5	3.8	+20mm min
Tolerance	±0.5					±0.2					±0.3			-15mm min

Taping Code

Code	Z	2	3	7	5	S
Lead Pitch:+0.8/-0.2	2.0	2.5	3.5	3.5	5.0	5.0

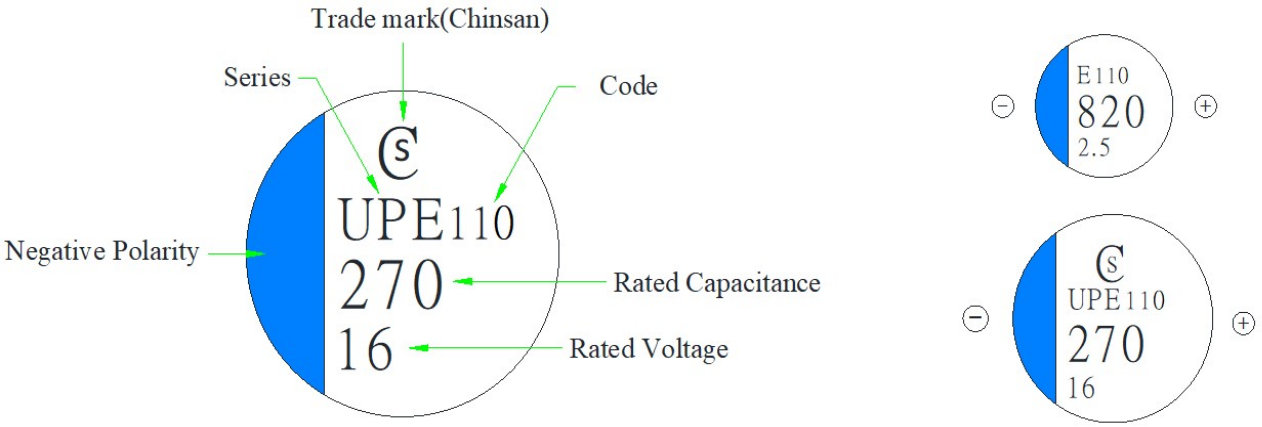
(7) Case Dimension

DIP Code	0508	6305	6308	6316	0807	0808	0811	0816	0820	1012	1016	1020
Size	5×8	6.3×5	6.3×8	6.3×16	8×7	8×8	8×11	8×16	8×20	10×12	10×16	10×20
SMD Code	5057	6343	6357	6377	6309	0867	0897	08C7	1077	10C4		
Size	5×5.7	6.3×4.3	6.3×5.7	6.3×7.7	6.3×9	8×6.7	8×9.7	8×12.7	10×7.7	10×12.4		

(8) Special Request

Code	R	F5	L	T
Description	High Rated ripple current	Endurance 5000 hrous	Low Leakage Current	Terminal strength
Code	U	E	X	S
Description	Convex Rubber	Low ESR	Pitch 2.5mm	Limit high

♦ MARKING AND DATE CODE



Trade Mark "CS"	Chinsan Solid Capacitor, Show on Dimension ≧8 Φ

Code (Date Code)

(1) (2) (3)

1	1	0

(1)DAY

Code	1	2	3	4	5
Week	The first week	The second week	The third week	The fourth week	The fifth week

(2)Month

Code	1	2	3	4	5	6
Month	Jan	Feb	Mar	Apr	May	Jun
Code	7	8	9	X	Y	Z
Month	July	Aug	Sep	Oct	Nov	Dec

(3)Year

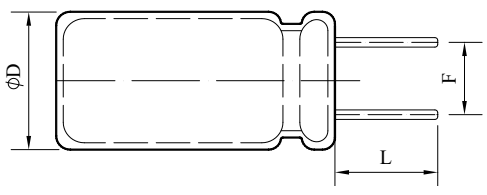
Code	9	0	1	2	3	4
Year	2019	2020	2021	2022	2023	2024

Series (Print Code)

Series	UPS	UPR	UUL	UPE	URP	URH	UGP	UGV	UGS	UPC	VSG	VSP	VSU	VSE
Φ 5~ Φ 6.3	--	R	L	E	--	H	P	V	--	C	G	P	U	E
Φ 8~ Φ 10	UPS	--	UL	UPE	RP	RH	GP	GV	GS	UPC	SG	SP	SU	SE

♦ LEAD FORMING TYPE

Type	Part Number	Dimensions (Unit: mm)													
		ΦD	F	ι	L (Part number for lead length and pitch for taping)										
					3	4	U	7	D	X	R	B	E	G	2	M	T
					3.5	4.5	5.5	7	4	2.3	2.5	2.8	3.1	3.3	2.5	3.5	3.8
					±0.5					±0.2					±0.3		
Cut	C	5	2	----													
		6.3	2.5	----													
		8	3.5	----													
		10	5	----													



♦ TAPING

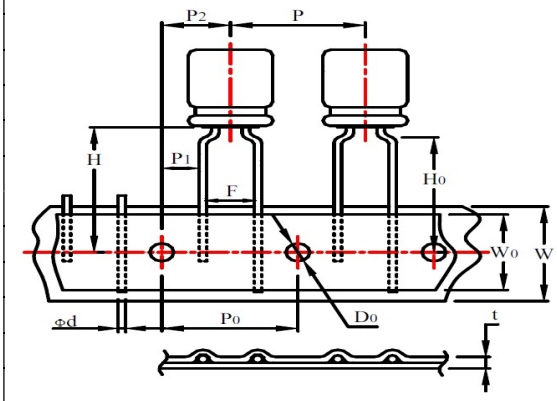
Figure 1	Symbol	Tolerance	Φ 5		Φ 6.3		Φ 8	
			PS	P5	PS	P5	PS	**P5**
	Φd	±0.05	0.45		0.45/0.6		0.6	
	P	±0.1	12.7		12.7		12.7	
	P0	±0.2	12.7		12.7		12.7	
	P1	±0.5	3.85		3.85		3.85	
	P2	±1.0	6.35		6.35		6.35	
	F	0.8	5		5		5	
		-0.2						
	H	±0.5	17.5	18.5	17.5	18.5	17.5	18.5
	H0	±0.5	16		16		16	
	W	±0.5	18		18		18	
	W0	Minimum	12.5		12.5		12.5	
	D0	±0.2	4		4		4	
	t	±0.2	0.7		0.7		0.7	

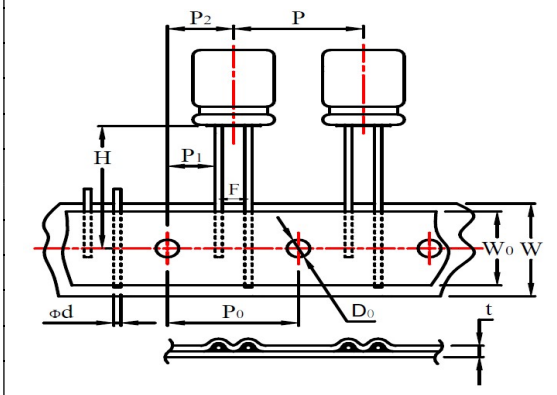
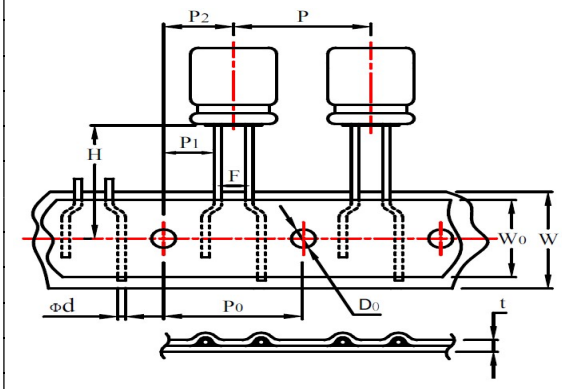
Figure 2	Symbol	Tolerance	**Φ 6.3**	**Φ 8**			**Φ 10**		
			P2	**P3**	**H3**	**P7**	**P5**	**H5**	**J5**
	Φd	±0.05	0.45/0.6	0.6			0.6		
	P	±0.1	12.7	12.7			12.7		
	P0	±0.2	12.7	12.7			12.7		
	P1	±0.5	5.1	4.6			3.85		
	P2	±1.0	6.35	6.35			6.35		
	F	+0.8	2.5	3.5			5		
		-0.2							
	H	±0.5	118.5	18.5	20	17.5	18.5	20	21
	H0	±0.5	-	-			-		
	W	±0.5	18	18			18		
	W0	Minimum	12.5	12.5			12.5		
	D0	±0.2	4	4			4		
	t	±0.2	0.7	0.7			0.7		

Figure 3	Symbol	Tolerance	**Φ 5**
			PZ
	Φd	±0.05	0.45
	P	±0.1	12.7
	P0	±0.2	12.7
	P1	±0.5	5.35
	P2	±1.0	6.35
	F	+0.8	2.0
		-0.2	
	H	±0.5	18.5
	H0	±0.5	-
	W	±0.5	18
	W0	Minimum	12.5
	D0	±0.2	4
	t	±0.2	0.7

Packing quantity

Size		Inner Box	Carton Box
ØD	L	Q'ty (Pcs.)	Q'ty (Pcs.)
5	8~12	2500	12500
5.5	8~12	2200	11000
6.3	5~12	2000	10000
	16	2000	10000
8	6~12	1000	5000
	16~22	1200	6000
10	7~12	800	4000
	16~22	800	4000