

# Aluminum Electrolytic Type / Surface Mount Type

RoHS compliance

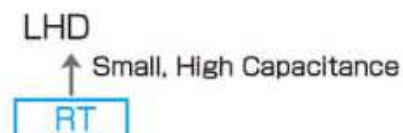
# LHD

## Series

Ultra Low ESR



- 105°C 2,000 hours
- Solvent proof (within 2 minutes)



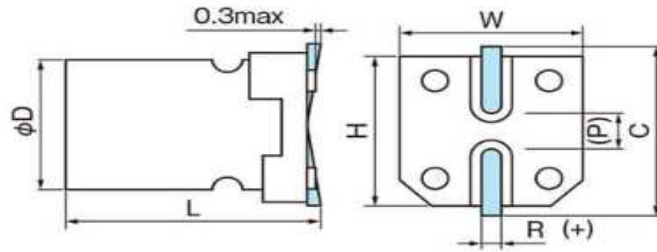
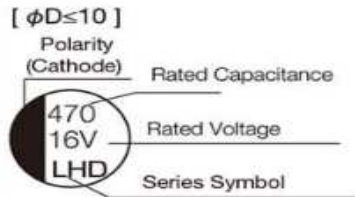
### ■ Specifications

Items		Condition	Specifications					
Rated voltage (V)	(V)	—	6.3	10	16	25	35	50
Surge voltage (V)	(V)	Room temperature	8.0	13	20	32	44	63
Category temperature range (°C)		—	-55 to +105					
Capacitance tolerance (%)		120Hz/20°C	M : ±20					
Dissipation Factor (tan δ)	tan δ (max) 120Hz/20°C	φ4 to φ6.3	0.26	0.19	0.16	0.14	0.12	0.10
		φ8 to φ10	0.26	0.22	0.20	0.16	0.14	0.12
Leakage current (LC)		μA/after 2minutes (max)	Exceeding 1,000μF, +0.02 every 1,000μF The greater value of either 0.01CV or 3μA					
Impedance ratio at low temperature	Based on the value at 120Hz, +20°C	-25°C Z/Z <sub>20°C</sub>	4	3	2	2	2	2
		-55°C Z/Z <sub>20°C</sub>	8	5	4	3	3	3
Endurance	105°C 2,000hours rated voltage applied (With the rated ripple current)	Test	6.3V.DC : 2,000hours, φ8×10.5 and φ10×10.5 : 2,000hours					
		△C/C	Within ±30% of the initial value					
		tan δ	Less than 300% of the specified value					
		LC	Less than the specified value					

## ■ Marking, Dimensions

(Unit : mm)

Black print on the case top



A pressure relief vent is provided for  $\phi D=8$  or bigger (P)reference size

$D \pm 0.5$	L	$W \pm 0.2$	$H \pm 0.2$	$C \pm 0.2$	R	$P \pm 0.2$
4	$5.4 \pm 0.4$	4.3	4.3	5.1	0.5 to 0.8	1.0
5	$5.4 \pm 0.4$	5.3	5.3	6.1	0.5 to 0.8	1.3
6.3	$5.4 \pm 0.4$	6.6	6.6	7.3	0.5 to 0.8	2.2
6.3	$7.7 \pm 0.4$	6.6	6.6	7.3	0.5 to 0.8	2.2
8	$6.5 \pm 0.5$	8.3	8.3	9.2	0.7 to 1.2	3.1
8	$10.5 \pm 0.5$	8.3	8.3	9.2	0.7 to 1.2	3.1
10	$10.5 \pm 0.5$	10.3	10.3	11.2	0.7 to 1.2	4.4

## ■ Ripple Current Frequency Coefficient

Frequency:F(Hz)		$100 \leq F < 1k$	$1k \leq F < 10k$	$10k \leq F < 100k$	$100k \leq F$
Capacitance:C( $\mu F$ )	$C \leq 100$	1.00	1.30	1.50	1.80
	$100 < C \leq 330$	1.00	1.20	1.30	1.45
	$330 < C$	1.00	1.10	1.20	1.30

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### ■ Size, Impedance, Rated Ripple Current

$\mu\text{F}$ \n V	6.3		10		16		25		35		50	
10											4×5.8	85
											5×5.8	165
22							4×5.8	160	4×5.8	160	5×5.8	165
33							4×5.8	160	5×5.8	240		
47					4×5.8	160	5×5.8	240	5×5.8	240	6.3×5.8	195
68			4×5.8	160	5×5.8	240	5×5.8	240	6.3×5.8	300		
100	4×5.8	160			5×5.8	240	6.3×5.8	300	6.3×5.8	300	6.3×7.7	350
150					6.3×5.8	300	6.3×7.7	600	6.3×7.7	600		
220	5×5.8	240	6.3×5.8	300	6.3×5.8	300	6.3×7.7	600			8×10.5	670
330	6.3×5.8	300	6.3×7.7	600	6.3×7.7	600			8×10.5	850	10×10.5	900
390									8×10.5	850		
470	6.3×7.7	600	6.3×7.7	600			8×10.5	850				
560							8×10.5	850	10×10.5	1190		
680	6.3×7.7	600			8×10.5	850			10×10.5	1190		
820					8×10.5	850	10×10.5	1190				
1000			8×10.5	850	10×10.5	1190	10×10.5	1190				
1200					10×10.5	1190						
1500	8×10.5	850	10×10.5	1190								
2200	10×10.5	1190										

Case size:  $\phi$ DxL(mm)

Rated ripple current  
mA<sub>rms</sub>(120Hz, 105°C)