

# Data Sheet

## Capacitor

### Radial Type 105 LHK Series

#### Radial Type 105°C , LHK Series, General Purpose

#### Features

- Used in communication equipments, switching power supply, etc.
- Safety vent construction design

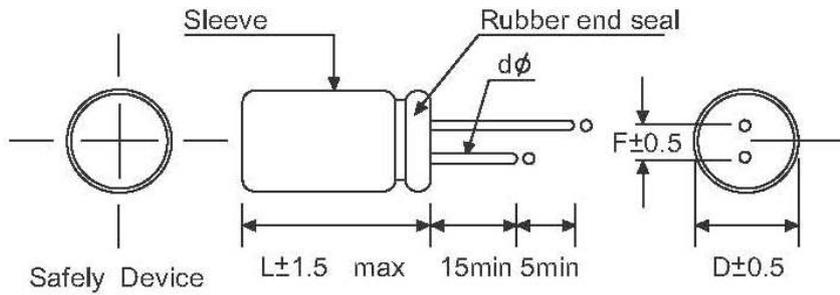


#### Specifications

Item	Performance Characteristics																																												
Operating Temperature Range	-40 to +105□	-25 to +105□																																											
Rated Voltage Range	6.3 to 100 VDC	160 to 450 VDC																																											
Capacitance Tolerance	±20%(120Hz, +20□)																																												
Leakage Current (+20□)	10V ~100V DC	I□0.01CV+3(µA)																																											
	160V~450V DC	I□0.03CV+3(µA)																																											
I: Leakage current(µA) C: Rated Capacitance(µF) V: Working Voltage[V] After 1minute whichever is greater measured with rated working voltage applied.																																													
Dissipation Factor [120Hz,20 °C]	<table border="1"> <thead> <tr> <th>W.V</th> <th>6.3</th> <th>10</th> <th>16</th> <th>25</th> <th>35</th> <th>50</th> <th>63</th> <th>100</th> <th>160</th> <th>200</th> <th>250</th> <th>350</th> <th>400</th> <th>450</th> </tr> </thead> <tbody> <tr> <td>Tanθ</td> <td>0.23</td> <td>0.20</td> <td>0.16</td> <td>0.14</td> <td>0.12</td> <td>0.10</td> <td>0.10</td> <td>0.10</td> <td>0.15</td> <td>0.15</td> <td>0.16</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> </tr> </tbody> </table> For capacitance exceeding 1000µF,add 0.02 per increment of 1000µF															W.V	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450	Tanθ	0.23	0.20	0.16	0.14	0.12	0.10	0.10	0.10	0.15	0.15	0.16	0.20	0.20	0.20
	W.V	6.3	10	16	25	35	50	63	100	160	200	250	350	400	450																														
Tanθ	0.23	0.20	0.16	0.14	0.12	0.10	0.10	0.10	0.15	0.15	0.16	0.20	0.20	0.20																															
Temperature Characteristics [Tanθ]	W.V.		6.3	10	16	25	35	50	63	100	160	200	250	350	400	450																													
	Impedance	-25°C/+20°C	4	3	2	2	2	2	2	2	3	3	3	5	6	15																													
		-40°C/+20°C	8	6	4	3	3	3	3	3	-	-	-	-	-	-																													
Impedance ratio of 120Hz																																													
Load Test	Test conditions Duration time : 5Ø~6Ø1000Hrs 8Ø~25Ø 2000Hrs Ambient temperature:+105□ Applied voltage: Rated DC working voltage After test requirements:at+20□ After test requirements:□±20% of the initial measured value Dissipation Factor: □200% of the initial specified value Leakage current: □The initial specified value																																												
Shelf Test	Test conditions Duration time :500Hrs Ambient temperature:+105□ Applied voltage: None After test requirements at +20□: Some limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.																																												



Diagram of Dimensions:



(Unit: mm)

<b>D</b>	5	6	8	10	13	16	18	22	25
<b>F</b>	2.0	2.5	3.5	5.0	5.0	7.5	7.5	10	12
<b>φd</b>	0.5			0.6		0.8			1.0

Ripple Current & Temperature

Temperature (□)	45	60	70	85	105
Multiplier	2.10	1.90	1.65	1.40	1.00

Ripple Current & Frequency Multipliers

Cap.(μF) \ Freq.(Hz)		50(60)	120	400	1K	10K	50-100K
		0.8	1.0	1.30	1.45	1.65	1.70
Multiplier	CAP □ 10	0.8	1.0	1.30	1.45	1.65	1.70
	10 < CAP □ 100	0.8	1.0	1.23	1.36	1.48	1.53
	100 < CAP □ 1000	0.8	1.0	1.16	1.25	1.35	1.38
	1000 < CAP	0.8	1.0	1.11	1.18	1.25	1.28



Case Size

∅ D x L (mm)

WV {SV}	6.3		{8}		10		{13}		16		{20}		25		{32}		35		{44}	
	uF	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	
4.7													5x11	27	5x11	29				
6.8													5x11	35	5x11	38				
10								5x11	38	5x11	40	5x11	42							
22				5x11	50	5x11	56	5x11	60	5x11	62	5x11	66	5x11	70	5x11	74			
33	5x11	56	5x11	60	5x11	65	5x11	70	74	5x11	78	5x11	82	5x11	86	5x11	90			
47	5x11	68	5x11	72	5x11	76	5x11	80	84	5x11	88	5x11	92	5x11	96	5x11	100	5x11	6.3x11	110
68	5x11	77	5x11	82	5x11	86	5x11	90	94	5x11	98	5x11	102	6.3x11	106	6.3x11	110	6.3x11	114	140
100	5x11	98	5x11	110	5x11	115	5x11	120	125	5x11	130	5x11	135	6.3x11	140	6.3x11	145	6.3x11	8x11	165
220	5x11 6.3x11	160 180	6.3x11	180	6.3x11	220	6.3x11	8x11	230	6.3x11	240	6.3x11	250	8x11	260	8x11	270	8x11	10x12	300
330	6.3x11	200	6.3x11	260	6.3x11	280	6.3x11	8x11	300	6.3x11	310	6.3x11	320	8x11	330	8x11	340	8x11	10x12	410
470	6.3x11 8x11	280 310	6.3x11	300	6.3x11	315	6.3x11	8x11	380	6.3x11	400	6.3x11	420	8x14	445	8x14	460	8x14	10x17	480
560	8x11	320	8x11	330	8x11	340	8x11	10x12	410	8x11	420	8x11	430	10x15	440	10x15	450	10x15	10x17	540
680	8x11	360	10x12	420	10x12	440	10x12	10x12	480	10x12	500	10x12	520	10x15	540	10x15	560	10x15	10x20	650
820	8x11	390	10x12	480	10x12	500	10x12	10x15	550	10x15	570	10x15	590	10x15	610	10x15	630	10x15	10x20	760
1000	8x11	420	10x12 10x15	530 580	10x12	570	8x16 10x15 10x17	570 600	630	600	630	600	630	10x15 10x17 10x20	740 800 850	10x25 13x21	870 880	10x25 13x21		
1200	10x15	480	10x15	650	10x15	670	10x20	710	730	10x20	750	10x20	770	10x20	850					
1500	10x15	620	10x17	770	10x17	790	10x20	820	840	10x20	860	10x20	880	13x21	910	13x21	930	13x21	13x26	970
2200	10x17 10x20	780 800	10x17 10x20	870 900	10x17	920	13x21 13x26	1020 1060	1060	13x21 13x26 16x16	1100 1140 1180	13x21 13x26 16x16	1210 1270 1270	16x26 16x31	1300 1400	16x26 16x31	1300 1400	16x26 16x31		
2700	10x20	850	13x21	920	13x21	940	13x21	1100	1120	16x26	1140	16x26	1160	16x26	1330	16x31	1350	16x31		
3300	10x20 13x21	970 1010	10x25 13x21	1110 1160	13x21	1180	13x21 13x26	1220 1240	1260	16x26 16x31	1300 1320	16x26 16x31	1480 1540	16x36	1680	16x36	1740	16x36		
4700	10x25 13x21	1160 1200	13x21 13x26	1360 1380	16x26	1400	16x26	1620	1640	16x31	1660	16x31	1800	18x36	1900	18x36	1920	18x36		
5600	13x26	1320	16x26	1510	16x31	1530	16x31	1720	1740	16x36	1760	16x36	1890	18x36	2000	18x36	2020	18x36		
6800	16x26	1470	16x26	1680	16x31	1700	16x31	1880	1900	18x36	1920	18x36	2040	18x41	2090	18x41	2110	18x41		
8200	16x26	1520	16x31	1840	16x36	1860	16x36	1950	1970	18x36	1990	18x36	2090	22x42	2180	22x42	2200	22x42		
10000	16x26 16x31	1690 1740	16x36 18x36	1900 1980	18x36 18x41	1960	18x36 18x41	2060 2080	2100	22x42	2120	22x42	2200	25x44	2300	25x44	2320	25x44		
15000	16x36 18x36	2080 2190	18x36	2230	22x40	2250	22x40	2300	2320	22x42	2340	22x42	2500	-	-	-	-	-		

Ripple Current(mA,rms)at105□120Hz



Case Size		Ø D x L (mm)									
uF	WV {SV}	50 {63}		63 {79}		100 {125}		160 {200}		200 {250}	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.1		5x11	1.3	5x11	1.3	5x11	1.3	-	-	-	-
0.22		5x11	2.9	5x11	2.9	5x11	2.9	-	-	-	-
0.33		5x11	4.2	5x11	4.2	5x11	4.2	-	-	-	-
0.47		5x11	8	5x11	8	5x11	8	5x11	12	5x11	12
1		5x11	14	5x11	14	5x11	15	5x11	17	6.3x11	17
2.2		5x11	20	5x11	21	5x11	22	6.3x11	26	6.3x11	33
3.3		5x11	26	5x11	28	5x11	30	6.3x11	32	6.3x11	43
4.7		5x11	32	5x11	34	5x11	36	6.3x11 8x11	36 42	8x11	51
6.8		5x11	40	5x11	42	6.3x11	47	8x11	56	10x12	63
10		5x11	50	5x11	51	6.3x11	60	8x11 10x12	75 78	10x12 10x15	83 90
22		5x11	75	5x11 6.3x11	75 85	6.3x11 8x11	98 105	10x15	105	10x20	135
33		5x11 6.3x11	90 95	6.3x11 8x11	105 115	8x11 10x12	145 155	10x20	170	13x21	180
47		6.3x11	120	6.3x11 8x11	145 155	10x12 10x15	170 180	13x21	210	13x21 13x26	220 230
68		8x11	155	8x11	185	10x15	240	13x26	280	16x26	300
100		8x11	200	10x12	240	10x20	290	13x26 16x26	320 330	16x26	360
220		10x12 10x15	350 380	10x17 10x20	400 430	13x26 16x26	530 560	16x36	580	18x36	590
330		10x17 10x20	450 470	13x21	570	16x26	680	18x31	710	18x36	740
470		13x21	610	13x21 13x26 16x26	640 700 720	16x26 16x31	840 860	18x41	880	22x42	890
560		13x21	660	13x26	770	16x36	880	-	-	-	-
680		13x26	770	16x26	880	16x36	920	-	-	-	-
820		13x26	850	16x26	920	18x31	970	-	-	-	-
1000		13x26 16x26	900 1010	16x32 16x36	1190 1220	18x41	1250	-	-	-	-
1500		16x31	1300	18x31	1350	22x42	1500	-	-	-	-
2200		18x36	1550	18x36	1590	25x44	1880	-	-	-	-
2700		18x36	1610	22x42	1720	-	-	-	-	-	-
3300		18x36	1780	22x42	1900	-	-	-	-	-	-
4700		22x42	2050	25x44	2200	-	-	-	-	-	-
5600		25x42	2160	-	-	-	-	-	-	-	-
6800		25x44	2280	-	-	-	-	-	-	-	-

Ripple Current(mA,rms)at105□120Hz



Case Size		Ø D x L (mm)															
uF	WV {SV}	250		{300}		350		{400}		400		{450}		450		{500}	
		Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
0.47		5x11	12	6.3x11	15	6.3x11	15	6.3x11	15	6.3x11	15	6.3x11	15	6.3x11	15	6.3x11	15
1		6.3x11	17	6.3x11	20	6.3x11	20	8x11	22	8x11	22	8x11	22	8x11	22	8x11	22
2.2		8x11	36	10x12	39	10x12	39	10x12	39	10x12	39	10x12	39	10x12	39	10x12	39
3.3		8x11	43	10x12	53	10x12	53	10x12 10x15	53	55	55	10x15 10x20	53	55	55	55	55
4.7		10x12	51	10x12 10x15	63	66	66	10x15	69	69	69	10x20	64	10x20	64	10x20	64
6.8		10x12	70	10x15	79	79	79	10x15	85	85	85	10x20	75	10x20	75	10x20	75
10		10x15	90	10x20	110	110	110	10x15 10x20 13x21	100 112 115	115	115	13x21 13x26	92	98	98	98	98
22		10x20	160	13x26	180	180	180	13x21 16x26	170 190	190	190	16x26 16x31	175 180	180	180	180	180
33		13x21 13x26	175	180	16x26	190	190	16x26	220	220	220	16x36	210	16x36	210	16x36	210
47		13x26	240	16x31	250	250	250	16x31	300	300	300	16x36	280	16x36	280	16x36	280
68		16x26	320	16x31	330	330	330	16x36	355	355	355	18x36	330	18x36	330	18x36	330
100		16x31	400	18x36	420	420	420	18x36	450	450	450	-	-	-	-	-	-
120								18x31	440	440	440						

Ripple Current(mA,rms)at105□120Hz



## CONTENTS OF QUALITY ASSURANCE

### ASSURANCE METHOD CONTENTS

#### Performance

Unless otherwise specified, the capacitors shall be measured at +15°C to +35°C , 45to75%RH. However, if any doubt arises on the judgment, the measurement conditions shall be +20±1°C, 60to70%RH the test Conditions shall comply with IEC-60384-4.

#### 1.Capacitance(CAP.)

Measuring frequency	:120Hz±20%
Measuring voltage	:0.5V rms. +1.5 to 2.0V dc
Measuring circuit	:Series equivalent circuit.

Criteria: Shall be within the specified capacitance tolerance.

#### 2.Dissipation Factor (tanδ)

Measuring frequency	:120Hz±20%
Measuring voltage	:0.5V rms. +1.5 to 2.0V dc
Measuring circuit	:Series equivalent circuit.

Criteria: Shall not exceed the specified in the table of Ratings.

#### 3. Leakage Current (L.C.)

DC leakage current shall be measure with rate voltage, which is applied through a resistor of 1,000±10Ω connected in series with the capacitors , at the end of a specified period after the capacitors reached the rated voltage across the terminals.

Criteria: Shall not exceed the specified in the table of Ratings.

#### 4. Surge Voltage

4.1 The surge DC rating is the maximum voltage to which the capacitor should be subjected under any conditions. This includes transients and peak ripple at the highest line voltage.

4.2 Capacitors, connected in series with 1000 ohm resistors, shall withstand the surge test voltage applied at the rated of 1/2 minute on, 4 1/2 minutes off, for 1000 successive test cycles at 20°C (see the following table)

Rated Voltage (WV)	6.3	10	16	25	35	50	63
Surge Voltage (SV)	10	13	20	32	44	63	79

Rated Voltage (WV)	100	160	200	250	350	400	450
Surge Voltage (SV)	125	200	250	300	400	450	500

Criteria:

Capacitance change	: ≦ ±15% of initial value
Dissipation Factor	: within specified value
Leakage Current	: within specified value
Physical	: no broken and undamaged

### Endurance characteristic

#### 5. High temperature load life test

Condition	Specification	
1. Capacitors shall be placed in oven with application of ripple current and rate voltage for 2000±12hrs at 105°C	Capacitance change	Within ±20% of the initial value
2. The capacitors should be use within specified permissible ripple current in each standard products table(the sum of DC working voltage and AC peak voltage shall be equal to the rated DC working voltage	TANδ	Less then 200% of specified value
3. The specified maximum permissible ripple current in defined at 105°C and 120 Hz	Leakage Current	Within specified value
4. Then the capacitor shall be subjected to standard atmospheric conditions for 16 hours, after witch measurements shall be made.	Physical	no broken and undamaged

**6. High temperature shelf life test**

After 500hrs test at 105°C without rated working voltage. And then the capacitor shall be subjected to standard atmospheric conditions for 16 hours, after witch measurements shall be made.	Capacitance change	Within ±20% of the initial value
	TANδ	Less then 200% of specified value
	Leakage Current	Less then 200% of specified value
	Physical	no broken and undamaged

**7. Rotational temperature test**

Capacitor is place in a oven whose temperature follow specific regulation to change. The specific regulations is "+25°C (1 hr) → +105°C (2 hrs) → +25°C (0.5 hr) → -40°C (2 hrs) → +25°C (0.5 hr)", and it called a cycle. The test totals 10 cycles. And then the capacitor shall be subjected to standard atmospheric conditions for 16 hours, after witch measurements shall be made.	Capacitance change	Within ±10% of the initial value
	TANδ	Within specified value
	Leakage Current	Within specified value
	Physical	no broken and undamaged

**8. Humidity test**

Capacitors shall be exposed for 500±8hrs in an atmosphere of 90~ 95%R.H at 40°C. And then the capacitor shall be subjected to standard atmospheric conditions for 16 hours, after witch measurements shall be made.	Capacitance change	Within ±10% of the initial value
	TANδ	Less then 120% of specified value
	Leakage Current	Within specified value
	Physical	no broken and undamaged

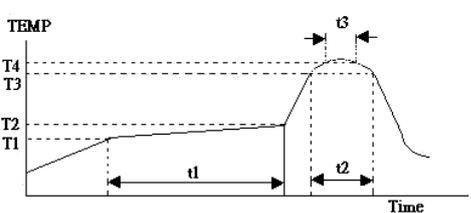
**9. Low temperature test**

Capacitor are place at -40±3°C for 72±4hrs. And then the capacitor shall be subjected to standard atmospheric conditions for 16 hours, after witch measurements shall be made.	Capacitance change	Within ±10% of the initial value
	TANδ	Within specified value
	Leakage Current	Within specified value
	Physical	no broken and undamaged

**10. Vibration test**

1. Fix it at the point 4mm or less form body. For ones of 12.5mm or 25mm or more length, use separate fixture. 2. Direction and during of vibration:3 orthogonal direction each for 2hrs total 6hrs. 3. Mutually frequency: 10 to55Hz reciprocation for 1 min. 4.Total amplitude:1.5mm	Capacitance change	Within ±10% of the initial value
	TANδ	Within specified value
	Leakage Current	Within specified value
	Physical	no broken and undamaged

**11. Reflow test**

1. IR Reflow  <table border="1" data-bbox="151 1680 742 1926"> <tr> <td rowspan="2">Preheat</td> <td>Temp (T1~T2)</td> <td>100~150°C</td> </tr> <tr> <td>Time (t1) max</td> <td>40 sec</td> </tr> <tr> <td rowspan="2">Duration</td> <td>Temp(T3)</td> <td>260°C</td> </tr> <tr> <td>Time (t2) max</td> <td>10 sec</td> </tr> <tr> <td rowspan="2">Peck</td> <td>Temp(T4)</td> <td>270°C</td> </tr> <tr> <td>Time (t3) max</td> <td>5 sec</td> </tr> <tr> <td>Reflow cycle</td> <td colspan="2">Twice or less</td> </tr> </table> 2. Solder bath method: Solder temperature:260±3°C Immersion time:5+1/-0 sec Thickness of heat shunt (Printed wiring board):1.6mm 3. Soldering iron method: Bit temperature: 350±10°C Application time of soldering Iron:3+1/-0 sec	Preheat	Temp (T1~T2)	100~150°C	Time (t1) max	40 sec	Duration	Temp(T3)	260°C	Time (t2) max	10 sec	Peck	Temp(T4)	270°C	Time (t3) max	5 sec	Reflow cycle	Twice or less		Capacitance change	Within ±10% of the initial value
		Preheat	Temp (T1~T2)	100~150°C																
	Time (t1) max		40 sec																	
	Duration	Temp(T3)	260°C																	
Time (t2) max		10 sec																		
Peck	Temp(T4)	270°C																		
	Time (t3) max	5 sec																		
Reflow cycle	Twice or less																			
TANδ	Within specified value																			
Leakage Current	Within specified value																			
Physical	no broken and undamaged																			



**12. Solderability test**

After the lead wire fully immersed in the solder for  $2 \pm 0.1$  sec at a temperature of  $245 \pm 2^\circ\text{C}$ , the solder coating must be more than 95%

**13. Mechanical**

1. The test is about lead tabs strength.
2. Tension test:  
The lead tabs shall not be broken or any malformed condition after fixing capacitor vertically and pressing the following weight on the lead tabs of capacitor for  $10 \pm 1$  sec.

Lead tabs diameter(mm)	Weight(Kg)
$\leq 0.5$	0.5
0.6~0.8	1.0
$> 0.8$	2.5

3. Bending test:  
capacitor is held in vertical position. Attach a weight to the lead tabs, slowly rotate the capacitor  $90^\circ$  to a same way in the opposite direction. Repeat it again (5 secs per cycle). The lead tabs shall not be broken or cracked.

Lead tabs diameter(mm)	Weight(Kg)
$\leq 0.5$	0.5
0.6~0.8	1.0
$> 0.8$	2.5

**14. Safety vent**

Condition: Apply a reverse voltage with current 1 amp.(DC reverse voltage test)  
Criteria: When the pressure relief vent operated, the capacitor shall not flame although gas generation or expulsion of a part of the inside element is allowable. If the vent does not operate with the voltage applied for 30 minutes, the test is Considered to be passed.

**15. Standards**

Satisfies Characteristic W of IEC-60384-4,18

**Code System**

	<b>471</b>	<b>M</b>	<b>16</b>	<b>V</b>	<b>8</b>	<b>11</b>	<b>----</b>
<u>Series</u>	<u>Capacitance</u>	<u>Tol.</u>	<u>Voltage</u>	<u>Sleeve</u>	<u>Dia.</u>	<u>Length</u>	<u>Forming</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

**(1) Series:**

LGK	LHK	LMK	LSM	LEK	LPS	LKP	LNP	LLK	LBP
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**(2) Capacitance (uF):**

$\mu\text{F}$	0.1	1	10	100	1000	10000	1.5
Code	0R1	010	100	101	102	103	1R5
$\mu\text{F}$	0.22	2.2	22	220	2200	22000	15
Code	R22	2R2	220	221	222	223	150
$\mu\text{F}$	0.33	3.3	33	330	3300	33000	150
Code	R33	3R3	330	331	332	333	151
$\mu\text{F}$	0.47	4.7	47	470	4700	47000	1500
Code	R47	4R7	470	471	472	473	152

**(3) Tolerance:**

Code	J	K	M
Tolerance	$\pm 5\%$	$\pm 10\%$	$\pm 20\%$

**(4) Working Voltage (V):**

6.3	10	16	25	35	50	63
100	160	200	250	350	400	450

**(5) Sleeve:**

Code	V	E
Sleeve	PVC	PET



**(6) Diameter (mm):**

4	5	6	8	10	13	16	18
22	25	30	35	51	64	77	90

**(7) Length (mm):**

5	7	9	11	12	14	16	20	21	25
26	31	33	36	40	42	45	50	53	65
75	83	96	100	115	121	130	140	144	157

**(8) Forming (optional):**

Taping + pitch (mm)	Cutting + length (mm)	Kink + pitch (mm)
TB2	C3.3	K5
TB2.5	C3.5	
TB3.5	C5	
TB5	C7	



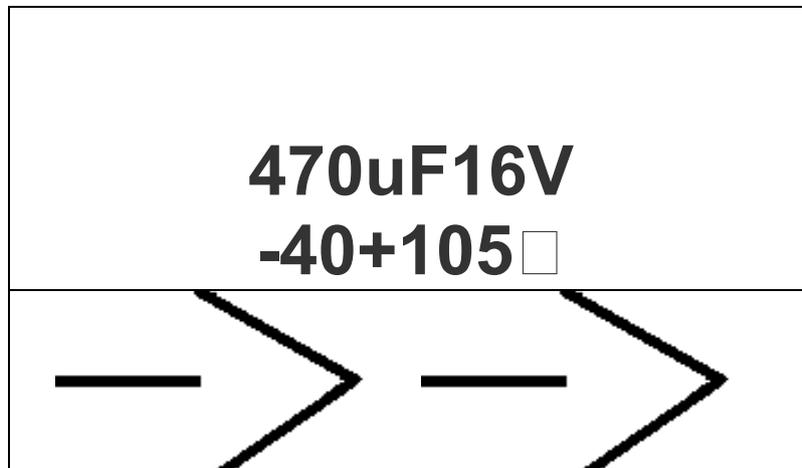
**LABEL**  
FRONT

<b>Electrolytic Capacitor</b>		
<b>Capacitance Range:</b>	<b>470</b>	<b>uF</b>
<b>Voltage Range:</b>	<b>16</b>	<b>V</b>
<b>Quantity:</b>	<u><b>1000</b></u>	<b>pcs</b>
<b>Remark:</b>	<b>8*11</b>	<b>105</b> <input type="checkbox"/>
		<b>RoHS</b>
	<b>MADE IN TAIWAN</b>	<b>COMPLIANT</b>

Lot No: 8 070313-000314  
DATE LOT NO.

**Marking:**

FRONT



BACK



**RS Radial Type 105°C LHK Series**

<b>Part Number</b>	<b>RS Stock Number</b>
RS336-6.3V-RL5x11	711-0696
RS476-6.3V-RL5x11	711-0690
RS686-6.3V-RL5x11	711-0700
RS107-6.3V-RL5x11	711-0703
RS227-6.3V-RL5x11	711-0707
RS227-6.3V-RL6.3x11	711-0716
RS337-6.3V-RL6.3x11	711-0719
RS477-6.3V-RL6.3x11	711-0713
RS477-6.3V-RL8x11	711-0722
RS567-6.3V-RL8x11	711-0725
RS687-6.3V-RL8x11	711-0729
RS827-6.3V-RL8x11	711-0738
RS108-6.3V-RL8x11	711-0731
RS108-6.3V-RL10x12	711-0735
RS158-6.3V-RL10x15	711-0744
RS228-6.3V-RL10x17	711-0747
RS228-6.3V-RL10x20	711-0741
RS278-6.3V-RL10x20	711-0750
RS338-6.3V-RL10x20	711-0753
RS338-6.3V-RL13x21	711-0757
RS478-6.3V-RL10x25	711-0766
RS478-6.3V-RL13x21	711-0769
RS568-6.3V-RL13x26	711-0763
RS688-6.3V-RL16x26	711-0772
RS828-6.3V-RL16x26	711-0775
RS109-6.3V-RL16x26	711-0779
RS109-6.3V-RL16x31	711-0788
RS159-6.3V-RL16x36	711-0781
RS159-6.3V-RL18x36	711-0785
RS226-10V-RL5x11	711-0794
RS336-10V-RL5x11	711-0797
RS476-10V-RL5x11	711-0791
RS686-10V-RL5x11	711-0801
RS107-10V-RL5x11	711-0804
RS227-10V-RL5x11	711-0808
RS227-10V-RL6.3x11	711-0817
RS337-10V-RL6.3x11	711-0810
RS337-10V-RL8x11	711-0814
RS477-10V-RL6.3x11	711-0823
RS477-10V-RL8x11	711-0826
RS567-10V-RL8x11	711-0820
RS687-10V-RL8x11	711-0839
RS687-10V-RL8x14	711-0832
RS687-10V-RL10x12	711-0836
RS827-10V-RL10x12	711-0845
RS108-10V-RL8x11	711-0848
RS108-10V-RL8x14	711-0842
RS108-10V-RL8x16	711-0851
RS108-10V-RL10x12	711-0854
RS108-10V-RL10x15	711-0858
RS158-10V-RL10x17	711-0867
RS228-10V-RL10x17	711-0860
RS228-10V-RL10x20	711-0864
RS278-10V-RL13x21	711-0873

**RS Radial Type 105°C LHK Series continued**

<b>Part Number</b>	<b>RS Stock Number</b>
RS338-10V-RL10x25	711-0876
RS338-10V-RL13x21	711-0870
RS478-10V-RL13x21	711-0889
RS478-10V-RL13x26	711-0882
RS568-10V-RL16x26	711-0886
RS688-10V-RL16x26	711-0895
RS688-10V-RL16x31	711-0898
RS828-10V-RL16x31	711-0892
RS109-10V-RL16x36	711-0902
RS109-10V-RL18x36	711-0905
RS159-10V-RL18x36	711-0909
RS105-16V-RL5x11	711-0918
RS106-16V-RL5x11	711-0911
RS226-16V-RL5x11	711-0915
RS336-16V-RL5x11	711-0924
RS476-16V-RL5x11	711-0927
RS686-16V-RL5x11	711-0921
RS107-16V-RL5x11	711-0930
RS107-16V-RL6.3x11	711-0933
RS107-16V-RL8x11	711-0937
RS227-16V-RL6.3x11	711-0946
RS227-16V-RL8x11	711-0949
RS337-16V-RL8x11	711-0943
RS477-16V-RL8x11	711-0952
RS477-16V-RL8x14	711-0955
RS477-16V-RL10x12	711-0959
RS567-16V-RL10x12	711-0968
RS687-16V-RL8x14	711-0961
RS687-16V-RL10x12	711-0965
RS827-16V-RL10x15	711-0974
RS108-16V-RL8x16	711-0977
RS108-16V-RL8x20	711-0971
RS108-16V-RL10x12	711-0980
RS108-16V-RL10x13	711-0983
RS108-16V-RL10x15	711-0987
RS108-16V-RL10x17	711-0996
RS108-16V-RL10x20	711-0999
RS158-16V-RL10x20	711-0993
RS228-16V-RL10x20	711-1006
RS228-16V-RL13x16	711-1009
RS228-16V-RL13x21	711-1003
RS228-16V-RL13x26	711-1012
RS278-16V-RL13x21	711-1015
RS338-16V-RL13x21	711-1019
RS338-16V-RL13x26	711-1028
RS338-16V-RL16x16	711-1021
RS478-16V-RL13x26	711-1025
RS478-16V-RL16x26	711-1034
RS478-16V-RL18x17	711-1037
RS568-16V-RL16x31	711-1031
RS568-16V-RL18x19	711-1040
RS688-16V-RL16x31	711-1043
RS828-16V-RL16x36	711-1047
RS109-16V-RL18x36	711-1056

**RS Radial Type 105°C LHK Series continued**

<b>Part Number</b>	<b>RS Stock Number</b>
RS109-16V-RL18x41	711-1059
RS159-16V-RL22x40	711-1053
RS105-25V-RL5x11	711-1062
RS475-25V-RL5x11	711-1065
RS685-25V-RL5x11	711-1069
RS106-25V-RL5x11	711-1078
RS226-25V-RL5x11	711-1071
RS336-25V-RL5x11	711-1075
RS476-25V-RL5x11	711-1084
RS686-25V-RL6.3x11	711-1087
RS107-25V-RL5x11	711-1081
RS107-25V-RL6.3x11	711-1090
RS107-25V-RL8x11	711-1093
RS227-25V-RL6x11	711-1097
RS227-25V-RL8x11	711-1107
RS227-25V-RL10x12	711-1100
RS337-25V-RL8x11	711-1104
RS337-25V-RL8x14	711-1113
RS337-25V-RL10x12	711-1116
RS477-25V-RL8x14	711-1110
RS477-25V-RL10x12	711-1129
RS477-25V-RL10x15	711-1122
RS477-25V-RL10x20	711-1126
RS567-25V-RL10x15	711-1135
RS687-25V-RL10x12	711-1138
RS687-25V-RL10x15	711-1132
RS687-25V-RL10x17	711-1141
RS827-25V-RL10x15	711-1144
RS108-25V-RL10x15	711-1148
RS108-25V-RL10x17	711-1157
RS108-25V-RL10x20	711-1150
RS108-25V-RL13x16	711-1154
RS108-25V-RL13x21	711-1163
RS158-25V-RL13x21	711-1166
RS228-25V-RL10x25	711-1160
RS228-25V-RL13x21	711-1179
RS228-25V-RL13x26	711-1172
RS228-25V-RL16x16	711-1176
RS228-25V-RL16x26	711-1185
RS278-25V-RL16x26	711-1188
RS338-25V-RL16x26	711-1182
RS338-25V-RL16x31	711-1191
RS338-25V-RL18x17	711-1194
RS478-25V-RL16x31	711-1198
RS568-25V-RL16x36	711-1208
RS688-25V-RL18x36	711-1201
RS828-25V-RL18x36	711-1205
RS109-25V-RL18x41	711-1214
RS109-25V-RL22x42	711-1217
RS159-25V-RL22x42	711-1211
RS105-35V-RL5x11	711-1220
RS475-35V-RL5x11	711-1223
RS685-35V-RL5x11	711-1227
RS106-35V-RL5x11	711-1236

**RS Radial Type 105°C LHK Series continued**

<b>Part Number</b>	<b>RS Stock Number</b>
RS226-35V-RL5x11	711-1239
RS336-35V-RL5x11	711-1233
RS476-35V-RL5x11	711-1242
RS476-35V-RL6.3x11	711-1245
RS686-35V-RL6.3x11	711-1249
RS107-35V-RL6.3x11	711-1258
RS107-35V-RL8x11	711-1251
RS107-35V-RL8x14	711-1255
RS227-35V-RL8x11	711-1264
RS227-35V-RL8x14	711-1267
RS227-35V-RL8x16	711-1261
RS227-35V-RL8x20	711-1270
RS227-35V-RL10x12	711-1273
RS337-35V-RL10x12	711-1277
RS337-35V-RL10x15	711-1286
RS477-35V-RL8x20	711-1289
RS477-35V-RL10x12	711-1283
RS477-35V-RL10x15	711-1292
RS477-35V-RL10x17	711-1295
RS477-35V-RL10x20	711-1299
RS567-35V-RL10x17	711-1309
RS567-35V-RL13x14	711-1302
RS687-35V-RL10x20	711-1306
RS687-35V-RL13x21	711-1315
RS827-35V-RL10x20	711-1318
RS108-35V-RL10x20	711-1312
RS108-35V-RL10x25	711-1321
RS108-35V-RL13x14	711-1324
RS108-35V-RL13x16	711-1328
RS108-35V-RL13x21	711-1337
RS108-35V-RL13x26	711-1330
RS108-35V-RL16x16	711-1334
RS158-35V-RL13x26	711-1343
RS228-35V-RL13x26	711-1346
RS228-35V-RL16x21	711-1340
RS228-35V-RL16x26	711-1359
RS228-35V-RL16x31	711-1352
RS228-35V-RL18x16	711-1356
RS278-35V-RL16x31	711-1365
RS338-35V-RL16x31	711-1368
RS338-35V-RL16x36	711-1362
RS338-35V-RL18x36	711-1371
RS478-35V-RL18x36	711-1374
RS568-35V-RL18x36	711-1378
RS688-35V-RL18x41	711-1387
RS828-35V-RL22x42	711-1380
RS109-35V-RL18x40	711-1384
RS109-35V-RL25x44	711-1393
RS104-50V-RL5x11	711-1396
RS224-50V-RL5x11	711-1390
RS334-50V-RL5x11	711-1400
RS474-50V-RL5x11	711-1403
RS105-50V-RL5x11	711-1407
RS225-50V-RL5x11	711-1416

**RS Radial Type 105°C LHK Series continued**

<b>Part Number</b>	<b>RS Stock Number</b>
RS335-50V-RL5x11	711-1419
RS475-50V-RL5x11	711-1413
RS685-50V-RL5x11	711-1422
RS106-50V-RL5x11	711-1425
RS106-50V-RL6x11	711-1429
RS226-50V-RL5x11	711-1438
RS336-50V-RL5x11	711-1431
RS336-50V-RL6.3x11	711-1435
RS476-50V-RL6.3x11	711-1444
RS686-50V-RL8x11	711-1447
RS107-50V-RL8x11	711-1441
RS227-50V-RL8x16	711-1450
RS227-50V-RL10x12	711-1453
RS227-50V-RL10x15	711-1457
RS227-50V-RL10x17	711-1466
RS337-50V-RL10x15	711-1469
RS337-50V-RL10x17	711-1463
RS337-50V-RL10x20	711-1472
RS477-50V-RL10x20	711-1475
RS477-50V-RL13x21	711-1479
RS567-50V-RL13x21	711-1488
RS687-50V-RL13x21	711-1481
RS687-50V-RL13x26	711-1485
RS827-50V-RL13x26	711-1494
RS108-50V-RL13x26	711-1497
RS108-50V-RL16x21	711-1491
RS108-50V-RL16x26	711-1501
RS158-50V-RL16x31	711-1504
RS228-50V-RL16x26	711-1508
RS228-50V-RL16x31	711-1517
RS228-50V-RL18x36	711-1510
RS278-50V-RL18x36	711-1514
RS338-50V-RL18x36	711-1523
RS478-50V-RL22x42	711-1526
RS568-50V-RL25x42	711-1520
RS688-50V-RL25x44	711-1539
RS109-50V-RL25x42	711-1532
RS109-50V-RL25x50	711-1536
RS104-63V-RL5x11	711-1545
RS224-63V-RL5x11	711-1548
RS334-63V-RL5x11	711-1542
RS474-63V-RL5x11	711-1551
RS105-63V-RL5x11	711-1554
RS225-63V-RL5x11	711-1558
RS335-63V-RL5x11	711-1567
RS475-63V-RL5x11	711-1560
RS685-63V-RL5x11	711-1564
RS106-63V-RL5x11	711-1573
RS226-63V-RL5x11	711-1576
RS226-63V-RL6.3x11	711-1570
RS336-63V-RL6.3x11	711-1589
RS336-63V-RL8x11	711-1582
RS476-63V-RL8x11	711-1586
RS476-63V-RL10x12	711-1595

**RS Radial Type 105°C LHK Series continued**

<b>Part Number</b>	<b>RS Stock Number</b>
RS686-63V-RL8x11	711-1598
RS107-63V-RL8x11	711-1592
RS107-63V-RL10x12	711-1602
RS227-63V-RL10x17	711-1605
RS227-63V-RL10x20	711-1609
RS337-63V-RL10x20	711-1618
RS337-63V-RL13x21	711-1611
RS477-63V-RL13x21	711-1615
RS477-63V-RL13x26	711-1624
RS477-63V-RL16x26	711-1627
RS567-63V-RL13x26	711-1621
RS687-63V-RL16x26	711-1630
RS827-63V-RL16x26	711-1633
RS108-63V-RL16x26	711-1637
RS108-63V-RL16x36	711-1646
RS158-63V-RL18x31	711-1649
RS228-63V-RL18x36	711-1643
RS228-63V-RL22x42	711-1652
RS278-63V-RL22x42	711-1655
RS338-63V-RL22x42	711-1659
RS478-63V-RL25x44	711-1668
RS104-100V-RL5x11	711-1661
RS224-100V-RL5x11	711-1665
RS334-100V-RL5x11	711-1674
RS474-100V-RL5x11	711-1677
RS105-100V-RL5x11	711-1671
RS225-100V-RL5x11	711-1680
RS225-100V-RL6x11	711-1683
RS335-100V-RL5x11	711-1687
RS475-100V-RL5x11	711-1696
RS685-100V-RL6.3x11	711-1699
RS106-100V-RL6.3x11	711-1693
RS226-100V-RL6.3x11	711-1703
RS226-100V-RL8x11	711-1706
RS336-100V-RL8x11	711-1700
RS336-100V-RL10x12	711-1719
RS476-100V-RL10x15	711-1712
RS476-100V-RL13x21	711-1716
RS686-100V-RL10x15	711-1725
RS686-100V-RL10x17	711-1728
RS107-100V-RL10x16	711-1722
RS107-100V-RL10x20	711-1731
RS227-100V-RL13x26	711-1734
RS227-100V-RL16x26	711-1738
RS337-100V-RL16x26	711-1747
RS477-100V-RL16x26	711-1740
RS477-100V-RL16x31	711-1744
RS567-100V-RL16x36	711-1753
RS687-100V-RL16x36	711-1756
RS827-100V-RL18x31	711-1750
RS108-100V-RL18x41	711-1769
RS158-100V-RL22x42	711-1762
RS228-100V-RL25x44	711-1766
RS474-160V-RL5x11	711-1775

**RS Radial Type 105°C LHK Series continued**

<b>Part Number</b>	<b>RS Stock Number</b>
RS105-160V-RL5x11	711-1778
RS225-160V-RL6.3x11	711-1772
RS335-160V-RL6.3x11	711-1781
RS475-160V-RL6.3x11	711-1784
RS475-160V-RL8x11	711-1788
RS685-160V-RL8x11	711-1797
RS106-160V-RL8x11	711-1790
RS106-160V-RL10x12	711-1794
RS226-160V-RL10x15	711-1804
RS336-160V-RL10x20	711-1807
RS476-160V-RL13x21	711-1801
RS686-160V-RL13x26	711-1810
RS107-160V-RL13x26	711-1813
RS107-160V-RL16x26	711-1817
RS227-160V-RL16x36	711-1826
RS337-160V-RL18x31	711-1829
RS477-160V-RL18x36	711-1823
RS477-160V-RL18x41	711-1832
RS474-200V-RL5x11	711-1835
RS105-200V-RL6.3x11	711-1839
RS225-200V-RL6.3x11	711-1848
RS335-200V-RL6.3x11	711-1841
RS475-200V-RL8x11	711-1845
RS685-200V-RL10x12	711-1854
RS106-200V-RL10x12	711-1857
RS106-200V-RL10x15	711-1851
RS226-200V-RL10x20	711-1860
RS336-200V-RL13x21	711-1863
RS476-200V-RL13x26	711-1867
RS476-200V-RL13x21	711-1876
RS686-200V-RL16x26	711-1879
RS107-200V-RL16x26	711-1873
RS227-200V-RL18x36	711-1882
RS337-200V-RL18x31	711-1885
RS337-200V-RL18x36	711-1889
RS477-200V-RL22x42	711-1898
RS474-250V-RL5x11	711-1891
RS105-250V-RL6.3x11	711-1895
RS225-250V-RL6x11	711-1905
RS225-250V-RL8x11	711-1908
RS335-250V-RL8x11	711-1902
RS475-250V-RL8x11	711-1911
RS475-250V-RL10x12	711-1914
RS685-250V-RL10x12	711-1918
RS106-250V-RL10x15	711-1927
RS226-250V-RL10x12	711-1920
RS226-250V-RL10x20	711-1924
RS336-250V-RL13x21	711-1933
RS336-250V-RL13x26	711-1936
RS476-250V-RL13x26	711-1930
RS476-250V-RL16x26	711-1949
RS686-250V-RL16x26	711-1942
RS107-250V-RL16x31	711-1946
RS474-350V-RL6.3x11	711-1955

**RS Radial Type 105°C LHK Series continued**

<b>Part Number</b>	<b>RS Stock Number</b>
RS105-350V-RL6.3x11	711-1958
RS225-350V-RL10x12	711-1952
RS335-350V-RL10x12	711-1961
RS475-350V-RL10x12	711-1964
RS475-350V-RL8x11	711-1968
RS475-350V-RL8x14	711-1977
RS475-350V-RL10x15	711-1970
RS475-350V-RL10x17	711-1974
RS475-350V-RL10x20	711-1983
RS685-350V-RL10x15	711-1986
RS106-350V-RL10x20	711-1980
RS226-350V-RL13x26	711-1999
RS336-350V-RL16x26	711-1992
RS476-350V-RL16x31	711-1996
RS686-350V-RL16x31	711-2009
RS107-350V-RL18x36	711-2002
RS474-400V-RL6.3x11	711-2006
RS105-400V-RL6x11	711-2015
RS105-400V-RL8x11	711-2018
RS225-400V-RL8x11	711-2012
RS475-400V-RL8x11	723-9700
RS475-400V-RL8x14	723-9703
RS225-400V-RL10x12	711-2021
RS335-400V-RL10x12	711-2024
RS335-400V-RL10x15	711-2028
RS685-400V-RL10x15	711-2037
RS106-400V-RL10x12	711-2030
RS106-400V-RL10x15	711-2034
RS106-400V-RL10x17	711-2043
RS106-400V-RL10x20	711-2046
RS106-400V-RL13x21	711-2040
RS226-400V-RL13x21	711-2059
RS226-400V-RL16x26	711-2052
RS336-400V-RL13x26	711-2056
RS336-400V-RL16x16	711-2065
RS336-400V-RL16x21	711-2068
RS336-400V-RL16x26	711-2062
RS476-400V-RL16x26	711-2071
RS476-400V-RL16x31	711-2074
RS476-400V-RL16x36	711-2078
RS476-400V-RL18x21	711-2087
RS686-400V-RL16x31	711-2080
RS686-400V-RL16x36	711-2084
RS686-400V-RL18x26	711-2093
RS107-400V-RL18x31	711-2096
RS107-400V-RL18x36	711-2090
RS474-450V-RL6.3x11	711-2100
RS105-450V-RL8x11	711-2103
RS225-450V-RL10x12	711-2107
RS225-450V-RL10x17	711-2116
RS335-450V-RL10x15	711-2119
RS335-450V-RL10x20	711-2113
RS475-450V-RL10x20	711-2122
RS685-450V-RL10x20	711-2125



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**RS Radial Type 105°C LHK Series continued**

<b>Part Number</b>	<b>RS Stock Number</b>
RS106-450V-RL13x21	711-2129
RS106-450V-RL13x26	711-2138
RS106-450V-RL16x16	711-2131
RS226-450V-RL16x26	711-2135
RS226-450V-RL16x31	711-2144
RS336-450V-RL16x36	711-2147
RS476-450V-RL16x26	711-2141
RS476-450V-RL16x36	711-2150
RS686-450V-RL18x31	711-2153
RS686-450V-RL18x36	711-2157
RS107-450V-RL18x36	711-2166
RS107-450V-RL22x30	711-2169