

# RHH

Radial Lead Type  
series

- High Reliability, High Voltage, High Temperature
- Low ESR, High ripple current
- Load life of 3,000h at 125°C



Br Cl  
Halogen Less

RoHS  
compliant

Pb  
lead-free

## SPECIFICATIONS

Items	Characteristics	
Temperature range	-55 to +125°C	
Rated voltage range	16 to 50Vdc	
Capacitance range	5.6 to 390μF	
Capacitance tolerance	±20% [M] (at 20°C, 120Hz)	
Tangent of loss angle	Less than or equal to the value of Standard Ratings (at 20°C, 120Hz)	
Leakage current	Less than or equal to the value of Standard Ratings (at 20°C, after 2 minutes)	
ESR	Less than or equal to the value of Standard Ratings	
Characteristics of impedance	Z <sub>+125°C</sub> /Z <sub>+20°C</sub> ≤ 1.25, Z <sub>-55°C</sub> /Z <sub>+20°C</sub> ≤ 1.25 at 100kHz	
	125°C, 3,000 hrs at rated voltage	
Endurance	Appearance	No significant damage
	Capacitance change	Within±20% of the initial value
	Tangent of loss angle (tanδ)	≤150% of the initial specified value
	ESR(mΩ)	≤150% of the initial specified value
	Leakage current	≤The initial specified value
Damp Heat (Steady State)	60°C , 90 to 95% RH , 1,000 hrs , No-applied Voltage	
	Appearance	No significant damage
	Capacitance change	Within±20% of the initial value
	Tangent of loss angle (tanδ)	≤150% of the initial specified value
	ESR(mΩ)	≤150% of the initial specified value
Resistance to soldering heat	Leakage current	≤The initial specified value
	Flow method (260±5°C, 10s)	
	Appearance	No significant damage
	Capacitance change	Within±10% of the initial value
	Tangent of loss angle (tanδ)	≤130% of the initial specified value
	ESR(mΩ)	≤130% of the initial specified value
	Leakage current	≤The initial specified value

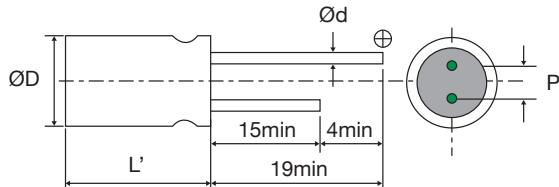
\*In case of some problems for measured values, measure after applying rated voltage for 120 minutes at 125°C

## SIZE LIST

(unit: mm)

μF	RV(SV)	16 (18.4)	20 (23)	25 (28.7)	35 (40.2)	50 (57.5)
5.6						6.3 x 6
10					6.3 x 6	8 x 7
18					8 x 7	
22				6.3 x 6		
27						8 x 11.5
33		6.3 x 6				
39			8 x 7			
47	6.3 x 6					10 x 11.5
56		8 x 7			8 x 11.5	
82	8 x 7					
100					10 x 11.5	
120				8 x 11.5		
150		8 x 11.5				
180				10 x 11.5		
220	8 x 11.5					
270		10 x 11.5				
390	10 x 11.5					

## MARKING AND DIMENSIONS



Size	ØD±0.5	L	L'	P±0.5	Ød
6.3 x 6	6.3	6.0	L max.	2.5	0.45
8 x 7	8.0	7.0		3.5	0.45
8 x 11.5	8.0	11.5	L+1.0max.	3.5	0.60
10 x 11.5	10.0	11.5		5.0	0.60

\*RV : Rated Voltage [V] SV : Surge Voltage [V] (at room temperature)

# Conductive Polymer Aluminum Capacitors

## STANDARD RATINGS

Rated Voltage [Vdc]	Rated Capacitance [ $\mu$ F]	Size $\Phi D \times L$ [mm]	ESR (20°C, 100kHz) [ $m\Omega$ ] [max.]	Rated Ripple Current (100kHz)[mArms]		Tangent of Loss Angle [max.]	Leakage Current [ $\mu$ A, max.]	Part Number
				-55 to +105°C	+105 to +125°C			
16	47	6.3 x 6	50	1620	512	0.12	150	16RHH47MC6
	82	8 x 7	40	2120	670	0.12	262	16RHH82MD7
	220	8 x 11.5	20	3640	1151	0.12	704	16RHH220MD11
	390	10 x 11.5	16	4720	1493	0.12	1248	16RHH390ME11
20	33	6.3 x 6	60	1450	459	0.12	132	20RHH33MC6
	56	8 x 7	50	1890	598	0.12	224	20RHH56MD7
	150	8 x 11.5	28	3320	1050	0.12	600	20RHH150MD11
	270	10 x 11.5	25	4320	1367	0.12	1080	20RHH270ME11
25	22	6.3 x 6	60	1500	474	0.12	110	25RHH22MC6
	39	8 x 7	50	1835	580	0.12	195	25RHH39MD7
	120	8 x 11.5	28	2980	943	0.12	600	25RHH120MD11
	180	10 x 11.5	25	3800	1202	0.12	900	25RHH180ME11
35	10	6.3 x 6	70	1100	340	0.12	70	35RHH10MC6
	18	8 x 7	60	1300	400	0.12	126	35RHH18MD7
	56	8 x 11.5	30	2300	700	0.12	392	35RHH56MD11
	100	10 x 11.5	28	3650	1150	0.12	700	35RHH100ME11
50	5.6	6.3 x 6	70	1000	310	0.12	56	50RHH5R6MC6
	10	8 x 7	60	1200	371	0.12	100	50RHH10MD7
	27	8 x 11.5	35	2100	665	0.12	270	50RHH27MD11
	47	10 x 11.5	30	2600	825	0.12	470	50RHH47ME11

EneCap™

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