

RHH

Radial Lead Type
series

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



● Specifications

Items	Characteristics	
Temperature range	-55 to +125°C	
Rated voltage range	16 to 80Vdc	
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	$Z_{+125^\circ\text{C}}/Z_{+20^\circ\text{C}} \leq 1.25$, $Z_{-55^\circ\text{C}}/Z_{+20^\circ\text{C}} \leq 1.25$ at 100kHz	
Endurance	125°C, 3,000 hrs at rated 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
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	
	Flow method (260±5°C, 10s)	≤The initial specified value
	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)	63 (72.4)	80 (92)
5.6					6.3x6			
10				6.3x6	8x7			
18				8x7				
22			6.3x6					
27					8x11.5			
33		6.3x6						
39			8x7					
47	6.3x6				10x11.5			
56		8x7		8x11.5				
68						8x15		
82	8x7							
100				10x11.5		10x16		
120			8x11.5					
150		8x11.5				10x16		
180			10x11.5					
220	8x11.5				8x21 8x23 10x16			
270		10x11.5						
330					10x21 10x23			
390	10x11.5							

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

● Marking and Dimensions

Size	$\varnothing D \pm 0.5$	L	L'	$P \pm 0.5$	$\varnothing d$
6.3x6	6.3	6.0			2.5
8x7	8.0	7.0			3.5
8x11.5	8.0	11.5			3.5
10x11.5	10.0	11.5			5.0
8x15	8.0	11.5			3.5
10x16	10.0	11.5			5.0
8x21	8.0	11.5			3.5
10x21	10.0	11.5			5.0
8x23	8.0	11.5			3.5
10x23	10.0	11.5			5.0

● Standard Ratings

Rated Voltage [Vdc]	Rated Capacitance [μ F]	Size ØD x L [mm]	ESR (20°C, 100kHz) [mΩ] [max.]	Rated Ripple Current (125°C, 100kHz) [mAmps]	Tangent of Loss Angel [max.]	Leakage Current [μ A, max.]	Part Number
16	47	6.3 x 6	50	512	0.12	150	16RHH47MC6
	82	8 x 7	40	670	0.12	262	16RHH82MD7
	220	8 x 11.5	20	1151	0.12	704	16RHH220MD11
	390	10 x 11.5	16	1493	0.12	1248	16RHH390ME11
20	33	6.3 x 6	60	459	0.12	132	20RHH33MC6
	56	8 x 7	50	598	0.12	224	20RHH56MD7
	150	8 x 11.5	28	1050	0.12	600	20RHH150MD11
	270	10 x 11.5	25	1367	0.12	1080	20RHH270ME11
25	22	6.3 x 6	60	474	0.12	110	25RHH22MC6
	39	8 x 7	50	580	0.12	195	25RHH39MD7
	120	8 x 11.5	28	943	0.12	600	25RHH120MD11
	180	10 x 11.5	25	1202	0.12	900	25RHH180ME11
35	10	6.3 x 6	70	340	0.12	70	35RHH10MC6
	18	8 x 7	60	400	0.12	126	35RHH18MD7
	56	8 x 11.5	30	700	0.12	392	35RHH56MD11
	100	10 x 11.5	28	1150	0.12	700	35RHH100ME11
50	5.6	6.3 x 6	70	310	0.12	56	50RHH5R6MC6
	10	8 x 7	60	371	0.12	100	50RHH10MD7
	27	8 x 11.5	35	665	0.12	270	50RHH27MD11
	47	10 x 11.5	30	825	0.12	470	50RHH47ME11
63	220	8 x 21	20	3000	0.12	693	63RHH220MD21
	220	8 x 23	20	3100	0.12	693	63RHH220MD23
	220	10 x 16	20	3100	0.12	1039	63RHH220ME16
	330	10 x 21	20	4000	0.12	1039	63RHH330ME21
80	330	10 x 23	20	4100	0.12	1039	63RHH330ME23
	68	8 x 15	30	2100	0.12	272	80RHH68MD15
	120	10 x 16	25	2500	0.12	480	80RHH220ME16
	150	10 x 16	25	2600	0.12	600	80RHH150ME16