



RLD Series

Features

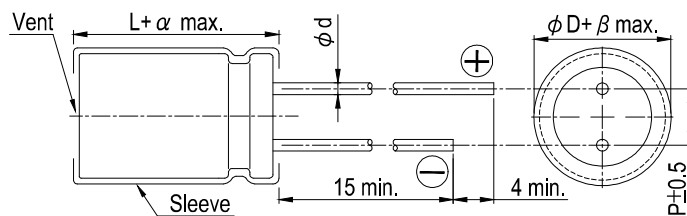
- 105°C, 12,000 hours assured
- 10 ϕ ~ 18 ϕ with large permissible ripple current
- Suitable for switching power supplies, UPS, Ballast
- Smaller case size current
- RoHS compliance



Specifications

Items	Performance							
Category Temperature Range	160 ~ 400V			450V				
	-40℃ ~ +105℃			-25℃ ~ +105℃				
Capacitance Tolerance	±20% (at 120 Hz, 20℃)							
Leakage Current (at 20℃)	Time		after 5 minutes					
	Leakage Current	CV ≤ 1,000 I = 0.03CV + 15(μA)		CV > 1,000 I = 0.02CV + 25(μA)				
		Where, C = rated capacitance in μF, V = rated DC working voltage in V						
Tanδ (at 120 Hz, 20℃)	Rated Voltage	160	200	250	350	400	450	
	Tanδ (max)	0.20	0.20	0.20	0.24	0.24	0.24	
Low Temperature Characteristics (at 120 Hz)	Impedance ratio shall not exceed the values given in the table below.							
	Rated Voltage		160	200	250	350	400	450
	Impedance Ratio	Z(-25℃)/Z(+20℃)	3	3	3	5	5	6
Z(-40℃)/Z(+20℃)		6	6	6	6	6	-	
Endurance	Test Time		12,000 Hrs					
	Capacitance Change		Within ±20% of initial value					
	Tanδ		Less than 200% of specified value					
	Leakage Current		Within specified value					
	* The above specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage applied with rated ripple current for 12,000 hours at 105℃.							
Shelf Life Test	Test Time		1,000 Hrs					
	Capacitance Change		Within ±20% of initial value					
	Tanδ		Less than 200% of specified value					
	Leakage Current		Less than 500% of specified value					
	* The above specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 1,000 hours at 105℃ without voltage applied. The rated voltage shall be applied to the capacitors before the measurements (Refer to JIS C 5101-4 4.1).							
Ripple Current and Frequency Multipliers	Frequency (Hz)		120	1k	10k	100k up		
	Cap. (μF)							
	15 ~ 82		1.00	1.75	2.25	2.50		
	100 ≤		1.00	1.67	2.05	2.25		

Diagram of Dimensions



Lead Spacing and Diameter				Unit: mm
ϕD	10	12.5	16	18
P	5.0	5.0	7.5	7.5
ϕd	0.6		0.8	
α	2.0			
β	0.5			



Dimension: $\phi D \times L(\text{mm})$
Ripple Current: mA/rms at 105°C

Dimension and Permissible Ripple Current

Rated Volt. (Vdc) Contents Cap.(μF)	160V (2C)			200V (2D)			250V (2E)			350V (2V)			400V (2G)		
	$\phi D \times L$	Ripple Current 120 Hz	100k Hz	$\phi D \times L$	Ripple Current 120 Hz	100k Hz	$\phi D \times L$	Ripple Current 120 Hz	100k Hz	$\phi D \times L$	Ripple Current 120 Hz	100k Hz	$\phi D \times L$	Ripple Current 120 Hz	100k Hz
22													10×25	215	538
27										10×25	240	600	10×35	270	675
33										10×35	300	750	10×40	310	775
47										12.5×30	450	1,125	12.5×25	355	888
56										10×45	385	963	10×50	400	1,000
68	10×25	375	938	10×35	425	1,063	10×25	315	788	12.5×30	450	1,125	12.5×35	480	1,200
82	10×30	445	1,113	10×45	565	1,413	12.5×25	430	1,075	10×50	440	1,100	16×25	515	1,288
100	10×35	520	1,170	12.5×30	660	1,485	12.5×30	590	1,475	12.5×40	595	1,488	16×25	515	1,288
120	10×40	595	1,339	10×50	640	1,440	12.5×35	585	1,316	16×25	565	1,413	18×25	580	1,450
150	12.5×25	680	1,700	12.5×35	765	1,721	16×25	700	1,575	16×25	565	1,413	18×25	580	1,450
180	10×50	715	1,609	12.5×40	880	1,980	18×25	865	1,946	16×31.5	675	1,688	18×35.5	685	1,713
220	12.5×35	850	1,913	16×25	840	1,890	18×25	865	1,946	16×31.5	670	1,675	18×35.5	685	1,713
270	16×25	920	2,070	16×31.5	995	2,239	18×25	865	1,946	16×31.5	670	1,675	18×35.5	685	1,713
330	16×31.5	1,100	2,475	18×25	950	2,138	18×35.5	1,015	2,284	16×31.5	670	1,675	18×35.5	685	1,713
390	18×25	1,050	2,363	18×31.5	1,125	2,531	18×35.5	1,015	2,284	16×31.5	670	1,675	18×35.5	685	1,713
470	16×35.5	1,240	2,790	18×31.5	1,135	2,554	18×35.5	1,015	2,284	16×31.5	670	1,675	18×35.5	685	1,713
560	18×31.5	1,255	2,824	18×35.5	1,300	2,925	18×35.5	1,015	2,284	16×31.5	670	1,675	18×35.5	685	1,713
680	16×40	1,420	3,195	18×40	1,470	3,308	18×40	1,320	2,970	16×31.5	670	1,675	18×35.5	685	1,713
820	18×35.5	1,435	3,229	18×40	1,510	3,398	18×40	1,320	2,970	16×31.5	670	1,675	18×35.5	685	1,713
1000	16×45	1,575	3,544	18×45	1,610	3,623	18×45	1,485	3,341	16×31.5	670	1,675	18×35.5	685	1,713
1200	18×40	1,590	3,578	18×45	1,610	3,623	18×45	1,485	3,341	16×31.5	670	1,675	18×35.5	685	1,713
1500	16×50	1,760	3,960							16×31.5	670	1,675	18×35.5	685	1,713
1800	18×45	1,770	3,983							16×31.5	670	1,675	18×35.5	685	1,713
2200	18×50	1,945	4,376							16×31.5	670	1,675	18×35.5	685	1,713

Rated Volt. (Vdc) Contents Cap.(μF)	450V (2W)		
	$\phi D \times L$	Ripple Current 120 Hz	100k Hz
15	10×25	185	463
22	10×35	250	625
27	10×40	290	725
33	12.5×25	340	850
47	12.5×30	400	1,000
56	12.5×40	525	1,313
68	16×25	500	1,250
82	12.5×50	605	1,513
100	16×31.5	585	1,463
120	16×35.5	660	1,650
150	18×31.5	660	1,650
180	16×45	760	1,900
220	18×35.5	755	1,888
270	16×50	855	1,924
330	18×40	845	1,901
390	18×45	945	2,126

Part Numbering System

RLD Series 15 μF $\pm 20\%$ 450V Bulk Package Flat Type 10 $\phi \times 25\text{L}$ Pb-free and PET sleeve

RLD **150** **M** **2W** **BK** **F** **1025**

Series Name Capacitance Capacitance Tolerance Rated Voltage Lead Configuration and Package Rubber Type Case Size Lead Wire and Sleeve type

Note: For more details, please refer to "Part Numbering System (Radial Type)" on page 13.

Mouser Electronics

Authorized Distributor

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RLD101M2CBK-1035	RLD101M2DBK-1045	RLD101M2DBK-1330	RLD101M2EBK-1050	RLD101M2EBK-1335
RLD101M2GBK-1640	RLD820M2WBK-1836	RLD820M2EBK-1045	RLD820M2EBK-1330	RLD820M2GBK-1636
RLD820M2VBK-1345	RLD820M2VBK-1632	RLD820M2WBK-1645	RLD680M2VBK-1340	RLD680M2VBK-1625
RLD680M2WBK-1636	RLD680M2WBK-1832	RLD820M2CBK-1030	RLD820M2DBK-1325	RLD680M2CBK-1025
RLD680M2DBK-1035	RLD680M2EBK-1035	RLD680M2EBK-1325	RLD680M2GBK-1345	RLD680M2GBK-1825
RLD560M2GBK-1625	RLD560M2VBK-1050	RLD560M2VBK-1335	RLD560M2WBK-1350	RLD560M2WBK-1632
RLD561M2CBK-1850	RLD470M2WBK-1625	RLD471M2CBK-1650	RLD471M2CBK-1845	RLD560M2DBK-1025
RLD560M2EBK-1325	RLD560M2GBK-1340	RLD470M2EBK-1025	RLD470M2GBK-1050	RLD470M2GBK-1335
RLD470M2VBK-1045	RLD470M2VBK-1330	RLD470M2WBK-1340	RLD331M2DBK-1840	RLD331M2EBK-1845
RLD391M2CBK-1645	RLD391M2CBK-1840	RLD391M2DBK-1845	RLD391M2EBK-1850	RLD330M2GBK-1040
RLD330M2VBK-1035	RLD330M2WBK-1330	RLD331M2CBK-1640	RLD331M2CBK-1836	RLD331M2DBK-1650
RLD271M2CBK-1636	RLD271M2CBK-1832	RLD271M2DBK-1640	RLD271M2DBK-1836	RLD271M2EBK-1650
RLD271M2EBK-1840	RLD221M2EBK-1832	RLD221M2VBK-1850	RLD270M2GBK-1035	RLD270M2VBK-1025
RLD270M2WBK-1040	RLD270M2WBK-1325	RLD220M2WBK-1035	RLD221M2CBK-1632	RLD221M2CBK-1825
RLD221M2DBK-1636	RLD221M2DBK-1832	RLD221M2EBK-1640	RLD181M2CBK-1625	RLD181M2DBK-1632
RLD181M2DBK-1825	RLD181M2EBK-1636	RLD181M2VBK-1845	RLD220M2GBK-1025	RLD151M2DBK-1340
RLD151M2DBK-1625	RLD151M2EBK-1345	RLD151M2EBK-1825	RLD151M2GBK-1845	RLD151M2VBK-1840
RLD121M2VBK-1645	RLD121M2VBK-1832	RLD121M2WBK-1845	RLD150M2WBK-1025	RLD151M2CBK-1050
RLD151M2CBK-1335	RLD121M2DBK-1050	RLD121M2DBK-1335	RLD121M2EBK-1340	RLD121M2EBK-1625
RLD121M2GBK-1650	RLD121M2GBK-1840	RLD101M2GBK-1836	RLD101M2VBK-1636	RLD101M2WBK-1650