

RZM

+105°C High Frequency Radial Lead Aluminum Electrolytic Capacitors



For All Applications Including Switching Power Supplies

FEATURES

- Up to 3,000 Hrs. of Load Life at +105°C and at Full Rated Voltage and Ripple Current
- Low Impedance
- Low ESR
- Capacitance Range: .47 μ F to 15,000 μ F
- Voltage Range: 6.3 WVDC to 50 WVDC
- 100 kHz Operating Frequency Range
- Solvent Tolerant End Seals Standard

SPECIFICATIONS

Capacitance Tolerance		± 20% at 120Hz, 20°C													
Operating Temperature Range		-55°C to +105°C													
Dissipation Factor 120Hz, 20°C	WVDC	6.3	10	16	25	35	50								
	tan δ	.26	.22	.18	.16	.14	.12								
Note: For above D.F. specifications, add .02 for every 1,000 μf above 1,000 μf															
Impedance Ratio (Max.) @120Hz	WVDC	6.3	10	16	25	35	50								
	-55°C/20°C	6	6	4	4	4	3								
Leakage Current	WVDC	≤ 50 WVDC													
	Time	1 minute													
		.03 CV													
Load Life		2,000 hours at +105°C with rated voltage and with ripple current, Case dia.(5.0, 6.3) 3,000 hours at +105°C with rated voltage and with ripple current, Case dia.(8.0 and larger)													
		Capacitance change Dissipation factor Leakage current					≤ 20% of initial measured value ≤ 200% of initial specified value ≤ initial specified value								
Shelf Life		1,000 hours at +105°C with no voltage applied. Units will meet load life specifications													
Ripple Current Multipliers		Frequency (Hz)						Temperature(°C)							
		Capacitance (F)	50	120	300	1K	10K	100K	+105	+85	+65	+50			
		≤ 4.7	.30	.43	.54	.70	.83	1.0	1.0	1.73	2.19	2.4			
		4.7 < C ≤ 33	.38	.51	.62	.76	.87	1.0	1.0	1.73	2.19	2.4			
		33 < C ≤ 100	.48	.60	.71	.85	.90	1.0	1.0	1.73	2.19	2.4			
		100 < C ≤ 270	.60	.72	.80	.91	.95	1.0	1.0	1.73	2.19	2.4			
		270 < C ≤ 1000	.68	.83	.90	.96	1.0	1.0	1.0	1.73	2.19	2.4			
		C > 1000	.82	.91	.98	.98	1.0	1.0	1.0	1.73	2.19	2.4			

SPECIAL ORDER OPTIONS

(See pages 33 thru 37)

- Special tolerances: $\pm 10\%$ (K), $-10\% + 30\%$ (Q)
- Tape and Reel/Ammo-Pack
- Cut, Formed, Cut and Formed, and Snap In Leads



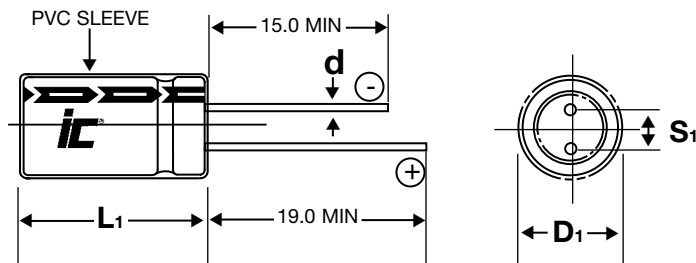
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PHYSICAL DIMENSIONS

WVDC (SV) (μF)	6.3 (7.9)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)
0.47						5x11
0.68						5x11
1.0						5x11
1.5						5x11
2.2						5x11
3.3						5x11
4.7						5x11
6.8						5x11
10						5x11
15						5x11
22		5x11	5x11			5x11
33					5x11	6.3x11
47				5x11		6.3x11
68			5x11	6.3x11		8x11.5
100		5x11		6.3x11		8x11.5
150		6.3x11	6.3x15	8x11.5	8x15, 10x12.5	10x16
220		6.3x11		8x11.5	10x12.5	10x16
330	6.3x11		8x11.5	10x12.5	10x16	10x20, 16x15
470		8x11.5	10x12.5	10x16	10x20, 16x15	12.5x20, 18x15
680	10x12.5	10x16	10x16	12.5x20, 16x15	18x15, 12.5x20	12.5x25, 16x20
1,000	10x12.5	10x16	10x20, 16x15	12.5x20, 18x15	12.5x25, 16x20	16x25
1,500	10x20, 12.5x15	12.5x20, 16x15	18x15, 12.5x20	12.5x25, 16x20	12.5x40, 16x25, 18x20	16x40, 18x31.5
2,200	10x20, 12.5x20, 16x15	12.5x20, 18x15	12.5x25, 16x20	16x25, 18x20	16x31.5	18x35.5
3,300	12.5x20, 18x15	12.5x25, 16x20	12.5x40, 16x25, 18x20	16x31.5	18x35.5	
4,700	16x25, 18x20	16x25	16x31.5	18x35.5	18x40	
6,800	16x25	16x31.5	18x35.5			
10,000	16x31.5	18x35.5	18x40			
15,000	18x35.5	18x40				

Convert to inches, divide by 25.4

DxL(mm)



LEAD INFORMATION V.S. CASE DIAMETER

D	5.0	6.3	8.0	10.0	12.5	16	18
S	2.0	2.5	3.5	5.0	5.0	7.5	7.5
d	0.5	0.5	0.6	0.6	0.6	0.8	0.8
B	0.5	0.5	0.5	0.5	0.8	0.5	0.5

L≤16, L₁=L+1.5 mm Max. L>16, L₁=L+2.0 mm Max.
D₁=D+B Max. S₁=S±0.5 mm Max.
D=12.5 and L>25 d=0.8 mm

NOTE: Case Vent is standard on all diameter ≥8.0mm

RZM

+105°C, Previous
standard not for
new designs

Capacitance (µF)	WVDC	IC PART NUMBER	Maximum ESR (mΩ) 120 Hz, +20°C	Impedance Ω +20°C/- 10°C 100kHz	Maximum RMS Ripple Current (A) 100 kHz, +105°C	Dims DxL (mm)
0.47	50	474RZM050M	423.284	19.5	20	5x11
0.68	50	684RZM050M	292.564	16.5	30	5x11
1	50	105RZM050M	198.944	13.5	40	5x11
1.5	50	155RZM050M	132.629	13.5	40	5x11
2.2	50	225RZM050M	90.529	11.7	50	5x11
3.3	50	335RZM050M	60.286	10.14	65	5x11
4.7	50	475RZM050M	42.328	9	65	5x11
6.8	50	685RZM050M	29.256	7.8	70	5x11
10	50	106RZM050M	16.579	3.992	110	5x11
15	50	156RZM050M	13.263	5.25	60	5x11
22	10	226RZM010M	16.579	2.4	180	5x11
22	16	226RZM016M	13.564	2.4	180	5x11
22	50	226RZM050M	9.043	4.8	150	5x11
33	35	336RZM035M	7.033	2.4	100	5x11
33	50	336RZM050M	6.029	1.68	200	6.3x11
47	25	476RZM025M	5.644	2.34	180	5x11
47	50	476RZM050M	4.233	1.68	210	6.3x11
68	16	686RZM016M	4.389	1.95	150	5x11
68	25	686RZM025M	3.901	1.8	200	6.3x11
68	50	686RZM050M	2.926	1.5	300	8x11.5
100	10	107RZM010M	3.647	2.4	80	5x11
100	25	107RZM025M	2.653	1.2	230	6.3x11
100	50	107RZM050M	1.989	1.05	325	8x11.5
150	10	157RZM010M	2.432	0.99	230	6.3x11
150	16	157RZM016M	1.989	1.34	260	6.3x15
150	25	157RZM025M	1.768	0.6	395	8x11.5
150	35	157RZM035M815	1.547	0.9	405	8x15
150	35	157RZM035M1013	1.547	0.6	435	10x12.5
150	50	157RZM050M	1.326	0.66	525	10x16
220	10	227RZM010M	1.658	0.99	250	6.3x11
220	25	227RZM025M	1.206	0.75	395	8x11.5
220	35	227RZM035M1013	1.055	0.66	535	10x12.5
220	50	227RZM050M	0.904	0.54	600	10x16
330	6.3	337RZM6R3M	1.306	0.99	250	6.3x11
330	16	337RZM016M	0.904	0.54	395	8x11.5
330	25	337RZM025M1013	0.804	0.36	535	10x12.5
330	35	337RZM035M	0.703	0.276	725	10x16
330	50	337RZM050M1020	0.603	0.42	750	10x20
330	50	337RZM050M1615	0.603	0.57	850	16x15
470	10	477RZM010M	0.776	0.75	395	8x11.5
470	16	477RZM016M1013	0.635	0.45	535	10x12.5
470	25	477RZM025M	0.564	0.273	725	10x16
470	35	477RZM035M1615	0.494	0.33	1000	16x15
470	35	477RZM035M1020	0.494	0.21	900	10x20
470	50	477RZM050M1320	0.423	0.33	1000	12.5x20
470	50	477RZM050M1815	0.423	0.48	1100	18x15
680	6.3	687RZM6R3M1013	0.634	0.36	535	10x12.5
680	10	687RZM010M1016	0.536	0.36	725	10x16
680	16	687RZM016M	0.439	0.273	725	10x16
680	25	687RZM025M1320	0.39	0.225	950	12.5x20
680	25	687RZM025M1615	0.39	0.33	1000	16x15
680	35	687RZM035M1815	0.341	0.24	1100	18x15
680	35	687RZM035M1320	0.341	0.195	1150	12.5x20
680	50	687RZM050M1325	0.293	0.255	1150	12.5x25
680	50	687RZM050M1620	0.293	0.24	1200	16x20
1000	6.3	108RZM6R3M	0.431	0.39	535	10x12.5

Capacitance (µF)	WVDC	IC PART NUMBER	Maximum ESR (mΩ) 120 Hz, +20°C	Impedance Ω +20°C/- 10°C 100kHz	Maximum RMS Ripple Current (A) 100 kHz, +105°C	Dims DxL (mm)
1000	10	108RZM010M	0.365	0.39	725	10x16
1000	16	108RZM016M1615	0.298	0.33	1000	16x15
1000	16	108RZM016M1020	0.298	0.21	900	10x20
1000	25	108RZM025M1815	0.265	0.24	1100	18x15
1000	25	108RZM025M1320	0.265	0.21	1150	12.5x20
1000	35	108RZM035M1620	0.232	0.225	1350	16x20
1000	35	108RZM035M1325	0.232	0.15	1300	12.5x25
1000	50	108RZM050M	0.199	0.18	1350	16x25
1500	6.3	158RZM6R3M1020	0.31	0.21	900	10x20
1500	6.3	158RZM6R3M1315	0.31	0.3	970	12.5x15
1500	10	158RZM010M1615	0.265	0.33	1000	16x15
1500	10	158RZM010M1320	0.265	0.27	1150	12.5x20
1500	16	158RZM016M1815	0.199	0.24	1100	18x15
1500	16	158RZM016M1320	0.221	0.195	1150	12.5x20
1500	25	158RZM025M1325	0.199	0.219	1300	12.5x25
1500	25	158RZM025M1620	0.199	0.114	1350	16x20
1500	35	158RZM035M1625	0.177	0.099	1570	16x25
1500	35	158RZM035M1820	0.177	0.183	1500	18x20
1500	35	158RZM035M1340	0.155	0.144	1800	12.5x40
1500	50	158RZM050M1640	0.133	0.147	2050	16x40
1500	50	158RZM050M1832	0.155	0.138	2000	18x31.5
2200	6.3	228RZM6R3M1320	0.226	0.195	1150	12.5x20
2200	6.3	228RZM6R3M1030	0.226	0.285	1100	10x30
2200	6.3	228RZM6R3M1615	0.196	0.33	1000	16x15
2200	10	228RZM010M1320	0.196	0.21	1150	12.5x20
2200	10	228RZM010M1815	0.196	0.24	1100	18x15
2200	16	228RZM016M1325	0.166	0.15	1300	12.5x25
2200	16	228RZM016M1620	0.166	0.225	1350	16x20
2200	25	228RZM025M1625	0.151	0.105	1570	16x25
2200	25	228RZM025M1820	0.151	0.183	1500	18x20
2200	35	228RZM035M	0.136	0.084	1850	16x31.5
2200	50	228RZM050M	0.121	0.135	2100	18x35.5
3300	6.3	338RZM6R3M1320	0.161	0.195	1150	12.5x20
3300	6.3	338RZM6R3M1815	0.161	0.24	1100	18x15
3300	10	338RZM010M1325	0.141	0.114	1300	12.5x25
3300	10	338RZM010M1620	0.141	0.225	1350	16x20
3300	16	338RZM016M1625	0.121	0.099	1570	16x25
3300	16	338RZM016M1820	0.121	0.183	1500	18x20
3300	16	338RZM016M1340	0.121	0.144	1600	12.5x40
3300	25	338RZM025M	0.111	0.084	1850	16x31.5
3300	35	338RZM035M	0.101	0.078	2200	18x35.5
4700	6.3	478RZM6R3M1625	0.12	0.099	1500	16x25
4700	6.3	478RZM6R3M1820	0.12	0.183	1550	18x20
4700	10	478RZM010M	0.106	0.099	1570	16x25
4700	16	478RZM016M	0.092	0.074	1850	16x31.5
4700	25	478RZM025M	0.085	0.078	2200	18x35.5
4700	35	478RZM035M	0.078	0.069	2400	18x40
6800	6.3	688RZM6R3M	0.093	0.099	1570	16x25
6800	10	688RZM010M	0.083	0.084	1850	16x31.5
6800	16	688RZM016M	0.073	0.078	2200	18x35.5
10000	6.3	109RZM6R3M	0.073	0.087	1850	16x31.5
10000	10	109RZM010M	0.066	0.075	2200	18x35.5
10000	16	109RZM016M	0.0597	0.072	2460	18x40
15000	6.3	159RZM6R3M	0.053	0.078	2200	18x35.5
15000	10	159RZM010M	0.055	0.069	2460	18x40

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