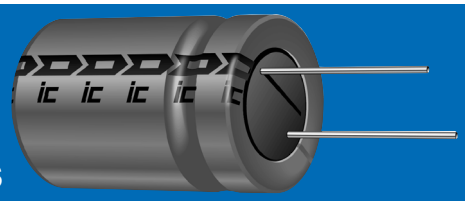
THE DATASHEET OF

107RZM050M

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 µF to 15,000 µF*
- *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 (µF)	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: ±10% (K), -10% + 30% (Q)* • *Tape and Reel/Ammo-Pack* • *Cut, Formed, Cut and Formed, and Snap In Leads*

ILLINOIS CAPACITOR, INC. *3757 W. Touhy Ave., Lincolnwood, IL 60712 • (847) 675-1760 • Fax (847) 673-2850 • www.illcap.com*

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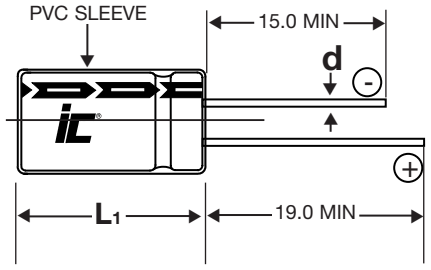
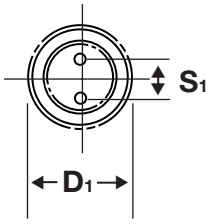
PHYSICAL DIMENSIONS

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

$L \leq 16$, $L_1 = L + 1.5$ mm Max. $L > 16$, $L_1 = L + 2.0$ mm Max.
$D_1 = D + B$ Max. $S_1 = S \pm 0.5$ mm Max.
D=12.5 and L>25 d=0.8 mm

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

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STANDARD PART LISTING

Capacitance (µF)	WVDC	IC® PART NUMBER	Maximum ESR Ω 120Hz, +20°C	Maximum RMS Ripple Current (mA) +105°C 100kHz	Impedance Ω 100kHz 20°C/-10°C	Dimensions DxL (mm)
0.47	50	**474RZM050M**	423.284	20	6.5 / 19.5	5x11
0.68	50	**684RZM050M**	292.564	30	5.5 /16.5	5x11
1.0	50	**105RZM050M**	198.944	40	4.5/13.5	5x11
1.5	50	**155RZM050M**	132.629	40	4.5/13.5	5x11
2.2	50	**225RZM050M**	90.529	50	3.9/11.7	5x11
3.3	50	**335RZM050M**	60.286	65	3.38/10.14	5x11
4.7	50	**475RZM050M**	42.328	65	3/9	5x11
6.8	50	**685RZM050M**	29.256	70	2.6/7.8	5x11
10	50	**106RZM050M**	19.894	80	1.82/5.46	5x11
15	50	**156RZM050M**	13.263	80	1.75/5.25	5x11
22	10	**226RZM010M**	16.579	180	.78/2.4	5x11
22	16	**226RZM016M**	13.564	180	.78/2.4	5x11
22	50	**226RZM050M**	9.043	150	1.6/4.8	5x11
33	35	**336RZM035M**	7.033	100	.8/2.4	5x11
33	50	**336RZM050M**	6.029	200	.56/1.68	6.3x11
47	25	**476RZM025M**	5.644	150	.78/2.34	5x11
47	50	**476RZM050M**	4.233	210	.56/1.68	6.3x11
68	16	**686RZM016M**	4.389	150	.65/1.95	5x11
68	25	**686RZM025M**	3.901	200	.6/1.8	6.3x11
68	50	**686RZM050M**	2.926	300	.5/1.5	8x11.5
100	10	**107RZM010M**	3.647	100	0.8/2.4	5x11
100	25	**107RZM025M**	2.653	230	.4/1.2	6.3x11
100	50	**107RZM050M**	1.989	325	.35/1.05	8x11.5
150	10	**157RZM010M**	2.432	230	.33/.99	6.3x11
150	16	**157RZM016M**	1.989	260	0.45/1.34	6.3x15
150	25	**157RZM025M**	1.768	395	.2/.6	8x11.5
150	35	**157RZM035M815**	1.547	405	.3/.9	8x15
150	35	**157RZM035M1013**	1.547	435	0.2/0.6	10x12.5
150	50	**157RZM050M**	1.326	525	0.22/0.66	10x16
220	10	**227RZM010M**	1.658	250	.33/.99	6.3x11
220	25	**227RZM025M**	1.206	395	.25/.75	8x11.5
220	35	**227RZM035M1013**	1.055	535	.22/.66	10x12.5
220	50	**227RZM050M**	0.904	600	.18/.54	10x16
330	6.3	**337RZM6R3M**	1.306	250	.33/.99	6.3x11
330	16	**337RZM016M**	0.904	395	.18/.54	8x11.5
330	25	**337RZM025M1013**	0.804	535	.12/.36	10x12.5
330	35	**337RZM035M**	0.703	725	.092/.276	10x16
330	50	**337RZM050M1020**	0.603	750	.14/.42	10x20
330	50	**337RZM050M1615**	0.603	850	.19/.57	16x15
470	10	**477RZM010M**	0.776	395	.25/.75	8x11.5

Capacitance (µF)	WVDC	IC® PART NUMBER	Maximum ESR Ω 120Hz, +20°C	Maximum RMS Ripple Current (mA) +105°C 100kHz	Impedance Ω 100kHz 20°C/-10°C	Dimensions DxL (mm)
470	16	**477RZM016M1013**	0.635	535	.15/.45	10x12.5
470	25	**477RZM025M**	0.564	725	.091/.273	10x16
470	35	**477RZM035M1020**	0.494	1000	.07/.21	10x20
470	35	**477RZM035M1615**	0.494	900	0.11/.33	16x15
470	50	**477RZM050M1320**	0.423	1100	.11/.33	12.5x20
470	50	**477RZM050M1815**	0.423	1000	.16/.48	18x15
680	6.3	**687RZM6R3M1013**	0.634	535	.12/.36	10x12.5
680	10	**687RZM010M1016**	0.536	725	.12/.36	10x16
680	16	**687RZM016M**	0.439	725	.091/.273	10x16
680	25	**687RZM025M1320**	0.390	950	.075/.225	12.5x20
680	25	**687RZM025M1615**	0.390	1000	0.11/.33	16x15
680	35	**687RZM035M1320**	0.341	1150	.065/.195	12.5x20
680	35	**687RZM035M1815**	0.341	1100	.08/.24	18x15
680	50	**687RZM050M1325**	0.293	1150	.85/.255	12.5x25
680	50	**687RZM050M1620**	0.293	1200	.08/.24	16x20
1,000	6.3	**108RZM6R3M**	0.431	535	0.13/0.39	10x12.5
1,000	10	**108RZM010M**	0.365	725	0.13/0.39	10x16
1,000	16	**108RZM016M1020**	0.298	900	0.07/.21	10x20
1,000	16	**108RZM016M1615**	0.298	1000	0.11/0.33	16x15
1,000	25	**108RZM025M1320**	0.265	1150	0.07/0.21	12.5x20
1,000	25	**108RZM025M1815**	0.265	1100	.08/.24	18x15
1,000	35	**108RZM035M1325**	0.232	1300	0.05/0.15	12.5x25
1,000	35	**108RZM035M1620**	0.232	1350	.075/.225	16x20
1,000	50	**108RZM050M**	0.199	1350	.06/.18	16x25
1,500	6.3	**158RZM6R3M1020**	0.310	900	.07/.21	10x20
1,500	6.3	**158RZM6R3M1315**	0.310	970	0.1/0.3	12.5x15
1,500	10	**158RZM010M1320**	0.265	1150	0.90/.27	12.5x20
1,500	10	**158RZM010M1615**	0.265	1000	.11/.33	16x15
1,500	16	**158RZM016M1320**	0.221	1150	.065/.195	12.5x20
1,500	16	**158RZM016M1815**	0.199	1100	.08/.24	18x15
1,500	25	**158RZM025M1325**	0.199	1300	.073/.219	12.5x25
1,500	25	**158RZM025M1620**	0.199	1350	.038/.114	16x20
1,500	35	**158RZM035M1340**	0.155	1800	.048/.144	12.5x40
1,500	35	**158RZM035M1625**	0.177	1570	.033/.099	16x25
1,500	35	**158RZM035M1820**	0.177	1500	.061/.183	18x20
1,500	50	**158RZM050M1640**	0.133	2050	0.049/0.147	16x40
1,500	50	**158RZM050M1832**	0.155	2000	.046/.138	18x31.5
2,200	6.3	**228RZM6R3M1030**	0.226	1100	.095/.285	10x30
2,200	6.3	**228RZM6R3M1320**	0.226	1150	.065/.195	12.5x20
2,200	6.3	**228RZM6R3M1615**	0.196	1100	.11/.33	16x15

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Capacitance (µF)	WVDC	IC PART NUMBER	Maximum ESR Ω 120Hz, +20°C	Maximum RMS Ripple Current (mA) +105°C 100kHz	Impedance Ω 100kHz 20°C/-10°C	Dimensions DxL (mm)
2,200	10	**228RZM010M1320**	0.196	1150	.07/.21	12.5x20
2,200	10	**228RZM010M1815**	0.196	1100	.08/.24	18x15
2,200	16	**228RZM016M1325**	0.166	1300	.05/.15	12.5x25
2,200	16	**228RZM016M1620**	0.166	1350	.075/.225	16x20
2,200	25	**228RZM025M1625**	0.151	1570	.035/.105	16x25
2,200	25	**228RZM025M1820**	0.151	1500	.061/.183	18x20
2,200	35	**228RZM035M**	0.136	1850	.028/.084	16x31.5
2,200	50	**228RZM050M**	0.121	2100	.045/.135	18x35.5
3,300	6.3	**338RZM6R3M1320**	0.161	1150	.065/.195	12.5x20
3,300	6.3	**338RZM6R3M1815**	0.161	1100	.08/.24	18x15
3,300	10	**338RZM010M1325**	0.141	1300	.038/.114	12.5x25
3,300	10	**338RZM010M1620**	0.141	1350	.075/.225	16x20
3,300	16	**338RZM016M1340**	0.121	1600	.048/.144	12.5x40
3,300	16	**338RZM016M1625**	0.121	1570	.033/.099	16x25
3,300	16	**338RZM016M1820**	0.121	1500	.061/.183	18x20
3,300	25	**338RZM025M**	0.111	1850	.028/.084	16x31.5

Capacitance (µF)	WVDC	IC PART NUMBER	Maximum ESR Ω 120Hz, +20°C	Maximum RMS Ripple Current (mA) +105°C 100kHz	Impedance Ω 100kHz 20°C/-10°C	Dimensions DxL (mm)
3,300	35	**338RZM035M**	0.101	2200	.026/.078	18x35.5
4,700	6.3	**478RZM6R3M1625**	0.120	1500	.033/.099	16x25
4,700	6.3	**478RZM6R3M1820**	0.120	1550	.061/.183	18x20
4,700	10	**478RZM010M**	0.106	1570	.033/.099	16x25
4,700	16	**478RZM016M**	0.092	1850	.028/0.074	16x31.5
4,700	25	**478RZM025M**	0.085	2200	.028/.078	18x35.5
4,700	35	**478RZM035M**	0.078	2400	.023/.069	18x40
6,800	6.3	**688RZM6R3M**	0.093	1570	.033/.099	16x25
6,800	10	**688RZM010M**	0.083	1850	.028/.084	16x31.5
6,800	16	**688RZM016M**	0.073	2200	.026/.078	18x35.5
10,000	6.3	**109RZM6R3M**	0.073	1850	0.029/0.087	16x31.5
10,000	10	**109RZM010M**	0.066	2200	0.025/0.075	18x35.5
10,000	16	**109RZM016M**	0.060	2460	0.024/0.072	18x40
15,000	6.3	**159RZM6R3M**	0.053	2200	0.026/0.078	18x35.5
15,000	10	**159RZM010M**	0.055	2460	0.023/0.069	18x40

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