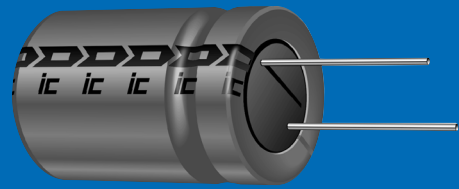


# RZS

## +105°C High Frequency Radial Lead Aluminum Electrolytic Capacitors



For Switching Power Supplies

### FEATURES

- High Ripple Current
- Low Impedance
- Low ESL and ESR
- 100 kHz Operating Frequency Range
- Capacitance Range 22  $\mu\text{F}$  to 2,200  $\mu\text{F}$
- Voltage Range 6.3 WVDC to 63 WVDC
- Solvent Tolerant End Seals Standard

### SPECIFICATIONS

Capacitance Tolerance		$\pm 20\%$ 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	63	
	$\tan \delta$	.2	.15	.1	.08	.07	.06	.05	
<b>Note:</b> For above D.F. specifications, add .02 for every 1,000 $\mu\text{F}$ above 1,000 $\mu\text{F}$									
Impedance Ratio (Max.) @120Hz	WVDC	6.3	10	16	25	35	50	63	
	-55°C/20°C	2.0	1.5	1.5	1.5	1.5	1.5	1.5	
Leakage Current	WVDC	$\leq 63$ WVDC							
	Time	2 minutes							
		.01 CV or 3 $\mu\text{A}$ whichever is greater							
Load Life	2,000 hours + 105°C with rated voltage								
		Capacitance change Dissipation factor Leakage current			$\leq 20\%$ of initial measured value $\leq 200\%$ of initial specified value $\leq$ initial specified value				
Shelf Life	1,000 hours at +105°C with no voltage applied.								
		Capacitance change Dissipation factor Leakage current			$\leq 20\%$ initial readings $\leq 250\%$ of initial specified value $\leq 200\%$ of initial specified value				

Aluminum Electrolytic

### SPECIAL ORDER OPTIONS

(See pages 33 thru 37)

- Special tolerances:  $\pm 10\%$  (K),  $-10\% + 30\%$  (Q)
- Tape and Reel
- Tape Ammo Pack
- Cut, Formed, Cut and Formed and Snap In Leads
- Epoxy end seal
- Mylar® Polyester Sleeve



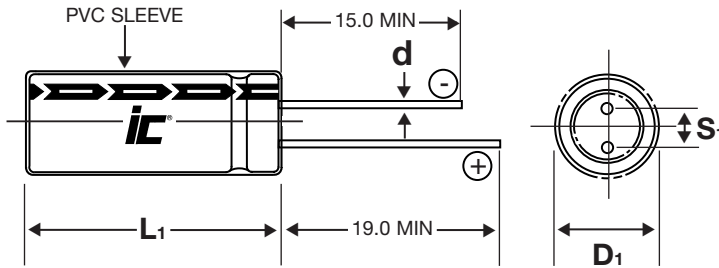
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## PHYSICAL DIMENSIONS

WVDC (SV) (μF)	6.3 (8)	10 (13)	16 (20)	25 (32)	35 (44)	50 (63)	63 (79)
22						10x12.5	10x16
33					10x12.5		10x16
47					10x12.5	10x16	10x20
100			10x12.5	10x16	10x20	12.5x20	12.5x25
220	10x12.5		10x16	12.5x20	12.5x25	16x25	16x31.5
330	10x16		10x20	12.5x25	16x25	16x31.5	16x35.5
470	10x20		12.5x20		16x25	16x35.5	
1,000		12.5x25	16x25	16x31.5			
2,200	16x25	16x31.5	16x35.5				

Convert to inches, divide by 25.4

DxL(mm)



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

### LEAD INFORMATION VS. CASE DIAMETER

D	5.0	6.3	8.0	10.0	12.5	16.0
S	2.0	2.5	3.5	5.0	5.0	7.5
d	0.5	0.5	0.6	0.6	0.6	0.8
B	0.5	0.5	0.5	0.5	0.8	0.5

L ≤ 16      L<sub>1</sub> = L + 1.5 mm Max.  
 L > 16      L<sub>1</sub> = L + 2.0 mm Max.  
 D<sub>1</sub> = D + B Max.  
 D = 12.5 and L > 25, d = 0.8  
 S<sub>1</sub> = S ± 0.5 mm

## STANDARD PART LISTING

Capacitance (µF)	WVDC	IC <sup>®</sup> PART NUMBER	Maximum ESR Ω +20°C, 120Hz	Maximum RMS Ripple Current (mA) 100kHz,+105°C	Impedance Ω 20°C 10k/100kHz	Dimensions DxL (mm)
22	50	226RZS050M	4.52	150	1.35/.6	10x12.5
22	63	226RZS063M	3.768	200	1.35/.6	10x16
33	35	336RZS035M	3.517	180	.9/.53	10x12.5
33	63	336RZS063M	2.512	240	.9/.5	10x16
47	35	476RZS035M	2.469	210	.8/.53	10x12.5
47	50	476RZS050M	2.116	260	.8/.5	10x16
47	63	476RZS063M	1.764	310	.8/.5	10x20
100	16	107RZS016M	1.658	240	.54/.45	10x12.5
100	25	107RZS025M	1.326	310	.36/.27	10x16
100	35	107RZS035M	1.161	370	.35/.23	10x20
100	50	107RZS050M	0.995	450	.3/.1	12.5x20
100	63	107RZS063M	0.829	540	.3/.1	12.5x25
220	6.3	227RZS6R3M	1.507	250	.48/.45	10x12.5
220	16	227RZS016M	0.754	400	.29/.26	10x16
220	25	227RZS025M	0.603	540	.15/.14	12.5x20
220	35	227RZS035M	0.528	650	.15/.1	12.5x25
220	50	227RZS050M	0.452	820	.14/.08	16x25

Capacitance (µF)	WVDC	IC <sup>®</sup> PART NUMBER	Maximum ESR Ω +20°C, 120Hz	Maximum RMS Ripple Current (mA) 100kHz,+105°C	Impedance Ω 20°C 10k/100kHz	Dimensions DxL (mm)
220	63	227RZS063M	0.377	1080	.14/.08	16x31.5
330	6.3	337RZS6R3M	1.005	360	.35/.27	10x16
330	16	337RZS016M	0.502	520	.21/.18	10x20
330	25	337RZS025M	0.402	700	.12/.1	12.5x25
330	35	337RZS035M	0.352	840	.09/.07	16x25
330	50	337RZS050M	0.301	1030	.09/.05	16x31.5
330	63	337RZS063M	0.251	1270	.08/.06	16x35.5
470	6.3	477RZS6R3M	0.705	490	.26/.23	10x20
470	16	477RZS016M	0.353	700	.12/.11	12.5x20
470	35	477RZS035M	0.247	1090	.08/.05	16x25
470	50	477RZS050M	0.212	1350	.06/.05	16x35.5
1,000	10	108RZS010M	0.249	900	.11/.11	12.5x25
1,000	16	108RZS016M	0.166	1150	.09/.09	16x25
1,000	25	108RZS025M	0.133	1320	.06/.06	16x31.5
2,200	6.3	228RZS6R3M	0.151	1090	.07/.07	16x25
2,200	10	228RZS010M	0.113	1520	.05/.05	16x31.5
2,200	16	228RZS016M	0.075	1780	.05/.05	16x35.5

### Ripple Current Multiplier

**NOTE:** When operated at temperatures below +105°C or at frequencies below 10kHz-100kHz, RMS Ripple current may be varied according to the multiplier values listed below. Peak Voltage not to exceed rated DC voltage.

### Ripple Current Multipliers

(WVDC)	Frequency(Hz)						Temperature(°C)		
	60	120	400	1K	10K	100K	+105°C	+85°C	+70°C
6.3-16	.54	.70	.85	.95	1.0	1.0	1.0	2.20	2.83
25-35	.43	.57	.73	.88	1.0	1.0	1.0	2.20	2.83
50-63	.39	.55	.71	.86	1.0	1.0	1.0	2.20	2.83

**Caution:** The surface temperature of the Capacitor shall not rise more than 10°C above the ambient temperature and shall never exceed +105°C.