

Aluminum Electrolytic Capacitors



Radial High Temp. High Reliability Type

Features:

- Operating temperature range -55~105°C.
- Solvent-proof.
- Suitable for high reliability products.

Specifications

Items	Performance										
	RAS				RASL						
Life	At 105°C 1000 Hrs.				At 105°C 2000 Hrs.						
Operating Temperature Range	-55°C~+105°C										
Capacitance Tolerance	+20% (at 20°C, 120Hz)										
Leakage Current	1=0.01 CV or 3 (μA) whichever is greater. (At 20°C, after 2 minutes) Where C=rated capacitance in μF. V=rated DC working voltage in V.										
Dissipation Factor (Tan δ, At 20°C, 120Hz)	Rated voltage (V)	6.3	10	16	25	35	50	63			
	Tan δ	0.23	0.20	0.16	0.14	0.12	0.10	0.09			
When the capacitance exceeds, 0.02 shall be added every 1,000μF increase.											
Temperature Characteristics	Rated Voltage		6.3	10	16	25	35	50	63	100	
	Impedance Ratio	Z-25°C/	∅D<16	4	3	3	2	2	2	2	2
		Z+20°C	∅D≥16	5	4	3	2	2	2	2	2
		Z-40°C/	∅D<16	8	6	4	4	4	3	3	2
Z+20°C		∅D≥16	10	8	6	4	3	3	3	2	
Life Test (after application of the rated voltage at 105°C)	Test Time	1000 Hrs.			2000 Hrs.						
	Test Item	Load Life	Shelf Life	Load Life	Shelf Life						
	Leakage Current	Within specified value									
	Dissipation Factor	Less than 200% of specified value									
	Capacitance Change	6.3~25V	±20%			±25%					
		35~100V	±20%			±20%					
Ripple Current & Frequency Multipliers	Freq.(Hz)	60	120	500	1K	100K/up					
	Cap.(μF)										
	under 100	0.70	1.00	1.30	1.40	1.50					
	100 to 1000	0.75	1.00	1.20	1.30	1.35					
1000 and up	0.80	1.00	1.10	1.12	1.15						
Ripple Current & Temperature Multipliers	Temperature (°C)	45	70	85	105						
	Multiplier	1.95	1.78	1.40	1.00						
Standard	Satisfies Characteristic W of JIS-C-5141										



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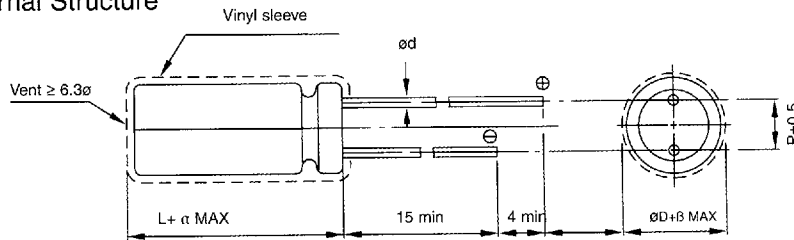
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RAS/RASL

Diagram Of Dimensions

Internal Structure

Unit:mm



Lead Spacing and Diameter

ØD	5	6.3	8	10	13	16	18	22
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5	7.5
ød	0.5			0.6		0.8		1.0
α	1.0			1.0 for L ≤ 16, 2.0 for L > 20				
β	0.5					1.0		

Dimensions and Permissible Ripple Current

Dimension øDxL (mm)

Ripple current: mA/RMS at 120 Hz 105°C

W.V.	Code	6.3 (0J)		10 (1A)		16 (1C)		25 (1E)		35 (1V)		50 (1H)		63 (1J)	
		øDXL	mA	øDXL	mA	øDXL	mA	øDXL	mA	øDXL	mA	øDXL	mA	øDXL	mA
0.1	ORI											5x11	2.0	5x11	3.0
0.22	R22											5x11	3.5	5x11	4.5
0.33	R33											5x11	5.0	5x11	7.5
0.47	R47											5x11	6.0	5x11	9.0
1	010											5x11	10	5x11	15
2.2	2R2											5x11	20	5x11	30
3.3	3R3											5x11	30	5x11	31
4.7	4R7											5x11	33	5x11	36
10	100									5x11	45	5x11	50	5x11	52
22	220					5x11	58	5x11	62	5x11	71	5x11	78	8x11.5	93
33	330					5x11	71	6.3x11	76	6.3x11	88	6.3x11	96	8x11.5	141
47	170			5x11	76	5x11	85	6.3x11	97	6.3x11	105	8x11.5	130	8x11.5	141
100	101	5x11	103	5x11	111	6.3x11	133	6.3x11	142	8x11.5	166	8x11.5	188	10x16	234
220	221	6.3x11	158	6.3x11	170	8x11.5	214	8x11.5	236	10x12.5	290	10x20	315	13x21	397
330	331	8x11.5	219	8x11.5	234	8x11.5	271	10x12.5	328	10x20	387	13x21	445	13x26	491
470	471	8x11.5	261	8x11.5	289	10x12.5	367	10x20	427	13x21	485	13x26	556	16x26	627
1000	102	10x12.5	431	10x16	480	10x20	562	13x21	656	13x26	715	16x32	869	16x36	942
2200	222	10x20	733	13x21	786	13x26	919	16x26	1016	16x32	1138	18x41	1319	22x41	1469
3300	332	13x21	897	13x21	1006	16x26	1164	16x32	1290	18x36	1440	22x41	1707		
4700	472	16x26	1159	16x26	1243	16x36	1432	18x41	1629	22x41	1859				

J