

Miniature Aluminum Electrolytic Capacitors

NRGB Series

HIGH TEMPERATURE, EXTENDED LOAD LIFE, RADIAL LEADS, POLARIZED

FEATURES

- IMPROVED ENDURANCE AT HIGH TEMPERATURE (up to 10,000HRS @ 105°C)
- IDEAL FOR LOW VOLTAGE LIGHTING BALLAST

RoHS Compliant
includes all homogeneous materials



CHARACTERISTICS

*See Part Number System for Details

Rated Voltage Range		10 ~ 100VDC						
Capacitance Range		0.47 ~ 330μF						
Operating Temperature Range		-25°C ~ +105°C						
Capacitance Tolerance		±20% (M)						
Maximum Leakage Current @ 20°C	After 2 min.	0.01CV or 3μA whichever is greater						
	W.V. (Vdc)	10	16	25	35	50	63	100
Max. Tan δ @ 120Hz/20°C	S.V. (Vdc)	13	20	32	44	63	79	125
		0.45	0.35	0.30	0.22	0.19	0.17	0.15
Low Temperature Stability Impedance Ratio @ 120Hz	Z-25°C/Z+20°C	8	6	4	4	3	3	3
Load Life Test at Rated Voltage @ 105°C	Duration	10,000 hours						
	Δ Capacitance	Within ±25% of initial measured value						
	Δ Tan δ	Less than 300% of specified value						
	Δ LC	Less than specified value						

MAXIMUM ESR

(Ω AT 120Hz AND 20°C)

Cap. (μF)	Working Voltage (Vdc)						
	10	16	25	35	50	63	100
0.47	-	-	-	-	670.5	-	529.4
1.0	-	-	-	-	315.2	-	248.8
2.2	-	-	-	-	143.3	-	113.1
3.3	-	-	-	-	95.5	-	75.4
4.7	-	-	-	-	67.1	-	52.9
10	-	-	-	-	31.5	28.2	24.9
22	-	-	-	-	14.3	12.8	11.3
33	-	-	15.1	11.1	9.55	8.54	-
47	-	12.4	10.6	7.76	6.71	6.00	-
100	7.46	5.81	4.98	3.65	3.15	-	-
220	3.39	2.64	-	-	-	-	-
330	2.26	-	-	-	-	-	-

STANDARD PRODUCT AND CASE SIZE D φ x L (mm)

Cap. (μF)	Code	Working Voltage (Vdc)						
		10	16	25	35	50	63	100
0.47	R47	-	-	-	-	5x11	-	5x11
1.0	1R0	-	-	-	-	5x11	-	5x11
2.2	2R2	-	-	-	-	5x11	-	5x11
3.3	3R3	-	-	-	-	5x11	-	5x11
4.7	4R7	-	-	-	-	5x11	-	5x11
10	100	-	-	-	-	5x11	5x11	6.3x11
22	220	-	-	-	-	5x11	6.3x11	8x11.5
33	330	-	-	5x11	5x11	6.3x11	6.3x11	-
47	470	-	5x11	5x11	6.3x11	6.3x11	8x11.5	-
100	101	5x11	6.3x11	6.3x11	8x11.5	8x11.5	-	-
220	221	6.3x11	8x11.5	-	-	-	-	-
330	331	8x11.5	-	-	-	-	-	-

MAXIMUM PERMISSIBLE RIPPLE CURRENT

(mA rms AT 100KHz AND 105°C)

Cap (μF)	Working Voltage (Vdc)						
	10	16	25	35	50	63	100
0.47	-	-	-	-	12	-	20
1.0	-	-	-	-	25	-	40
2.2	-	-	-	-	35	-	50
3.3	-	-	-	-	70	-	60
4.7	-	-	-	-	80	-	70
10	-	-	-	-	90	80	150
22	-	-	-	-	110	170	230
33	-	-	130	130	190	170	-
47	-	130	130	210	190	240	-
100	130	210	210	330	270	-	-
220	210	330	-	-	-	-	-
330	330	-	-	-	-	-	-

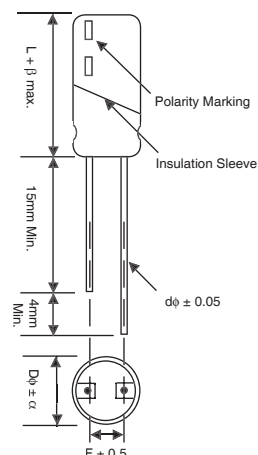
LEAD SPACING AND DIAMETER (mm)

Case Dia. (Dφ)	5	6.3	8
Lead Dia. (dφ)	0.5	0.5	0.6
Lead Spacing (F)	2.0	2.5	3.5
Dim. α	0.5		
Dim. β	1.5		

PART NUMBER SYSTEM

NRGB 331 M 10V 8X11.5 F

Series | Capacitance Code: First 2 characters significant, third character is multiplier | Working Voltage (Vdc) | Case Size (Dφ x L) | RoHS Compliant | Tolerance Code (M=20%)



RIPPLE CURRENT FREQUENCY CORRECTION FACTOR

Frequency (Hz)	Cap. (μF)	120	1K	10K	100K
Multiplier	0.47 ~ 10	0.42	0.60	0.80	1.00
	22 ~ 33	0.55	0.75	0.90	1.00
	47 ~ 330	0.70	0.85	0.95	1.00

PRECAUTIONS
Please review the notes on correct use, safety and precautions found on pages T10 & T11 of NIC's Electrolytic Capacitor catalog.
Also found at www.niccomp.com/precautions
If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: tpmg@niccomp.com

