Miniature Aluminum Electrolytic Capacitors

NRBX Series

HIGH TEMPERATURE, EXTENDED LOAD LIFE, RADIAL LEADS, POLARIZED

FEATURES

- IMPROVED ENDURANCE AT HIGH TEMPERATURE (up to 12,000HRS @ 105°C)
- IDEAL FOR HIGH VOLTAGE LIGHTING BALLAST

RoHS Compliant

includes all homogeneous materials

*See Part Number System for Details

CHARACTERISTICS

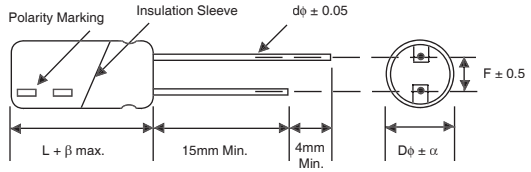
Rated Voltage Range		160 ~ 450VDC					
Capacitance Range		6.8 ~ 220µF					
Operating Temperature Range		-25°C ~ +105°C					
Capacitance Tolerance		±20% (M)					
Maximum Leakage Current @ 20°C	After 1 min.	0.04CV +100µA					
	After 5 min.	0.02CV +25µA					
Max. Tan δ	W.V. (Vdc)	160	200	250	350	400	450
	@120Hz/20°C	0.15	0.15	0.15	0.20	0.20	0.20
Low Temperature Stability Impedance Ratio @ 120Hz	Z-25°C/Z+20°C	3	3	3	6	6	6
Load Life Test at Rated Voltage @ 105°C	Duration	φ D = 10mm: 10,000 hours, φ D = 12.5≥: 12,000 hours					
	Δ Capacitance	Within ±20% of initial measured value					
	Δ Tan δ	Less than 200% of specified value					
	Δ LC	Less than specified value					

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

Capacitance (µF)	Code	Working Voltage (Vdc)					
		160	200	250	350	400	450
6.8	6R8	-	-	-	10x16	10x16	10x20
10	100	10x16	10x16	10x20	10x20	10x20	12.5x20
22	220	10x20	10x20	12.5x20	12.5x20	12.5x25	16x25
						16x20	18x20
33	330	10x20	12.5x20	12.5x20	16x20	16x25	16x31.5
						18x20	18x25
47	470	12.5x20	12.5x20	12.5x25	16x25	16x31.5	18x31.5
				16x20	18x20	18x25	
68	680	12.5x25	12.5x25	16x25	16x31.5	18x31.5	-
		16x20	16x20	18x20	18x25		
100	101	16x25	16x25	16x31.5	-	-	-
		18x20	18x20	18x25	-	-	-
150	151	16x31.5	16x31.5	18x31.5	-	-	-
		18x25	18x25		-	-	-
220	221	16x31.5	18x31.5	-	-	-	-
		18x25		-	-	-	-

LEAD SPACING AND DIAMETER (mm)

Case Dia. (Dφ)	10	12.5	16	18
Lead Dia. (dφ)	0.6	0.6	0.8	0.8
Lead Spacing (F)	5.0	5.0	7.5	7.5
Dim. α	0.5			
Dim. β	2.0			



PART NUMBER SYSTEM

NRBX 100 M 350V 10X20 F

- F — RoHS Compliant
- 10X20 — Case Size (Dφ x L)
- 350V — Working Voltage (Vdc)
- M — Tolerance Code (M=20%)
- 100 — Capacitance Code: First 2 characters significant, third character is multiplier
- NRBX — Series

MAXIMUM PERMISSIBLE RIPPLE CURRENT (mA rms AT 100KHz AND 105°C)

Cap. (µF)	Working Voltage (Vdc)					
	160	200	250	350	400	450
6.8	-	-	-	220	220	150
10	250	250	280	280	280	320
22	500	500	600	350	430	560
33	500	600	600	500	640	700
47	660	660	720	660	840	880
68	760	760	920	850	1000	-
100	1120	1120	1200	-	-	-
150	1360	1360	1500	-	-	-
220	1400	1700	-	-	-	-

MAXIMUM ESR (Ω AT 120Hz AND 20°C)

Cap. (µF)	Working Voltage (Vdc)					
	160	200	250	350	400	450
6.8	-	-	-	48.79	48.79	48.79
10	24.88	24.88	24.88	33.17	33.17	33.17
22	11.31	11.31	11.31	15.08	15.08	15.08
33	7.54	7.54	7.54	10.05	10.05	10.05
47	5.29	5.29	5.29	7.06	7.06	7.06
68	1.33	1.33	1.33	4.88	4.88	-
100	3.66	3.66	3.66	-	-	-
150	1.66	1.66	1.66	-	-	-
220	1.13	1.13	-	-	-	-

RIPPLE CURRENT FREQUECY CORRECTION FACTOR

Frequency (Hz)	120	1K	10K	100K
Multiplier	0.50	0.80	0.90	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**