

NRB-XW Series

Radial Leaded High Temperature Long Life Aluminum Electrolytic Capacitors

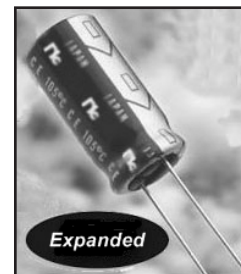


FEATURES

- HIGH RIPPLE CURRENT
- LONG LIFE AT HIGH TEMPERATURE (10,000 Hours @ +105°C)

CHARACTERISTICS

Rated Voltage Range		35 ~ 100VDC						
Capacitance Range		33 ~ 1,800μF						
Operating Temperature Range		-40°C ~ +105°C						
Capacitance Tolerance		±20% (M)						
Maximum Leakage Current @ +20°C		35V ~ 100V		0.01CV or 3μA whichever is greater after 2 minutes at rated voltage				
Max. Tan δ at 120Hz/20°C	W.V. (Vdc)		35	50	63	80	100	
	S.V. (Vdc)		44	63	80	100	125	
	Tan δ		0.12	0.10	0.09	0.08	0.08	
	W.V. (Vdc)		220	250	350	400	420	
	S.V. (Vdc)		270	300	400	450	470	
	Tan δ		0.20	0.20	0.20	0.20	0.25	
Low Temperature Stability Impedance Ratio @ 120Hz	W.V. (Vdc)		35	50	63	80	100	
	Z-25°C/Z+20°C		2	2	2	2	2	
	Z-40°C/Z+20°C		3	3	3	3	3	
Load Life at W.V. & 105°C 6.3mm: 7,000 Hours 8 ~ 10mm: 10,000 Hours	Δ Capacitance		35V ~ 100V		Within ±25% of initial measured value			
			160V ~ 450V		Within ±20% of initial measured value			
	Δ Tan δ		Less than 200% of specified value					
	Δ LC		Less than specified value					



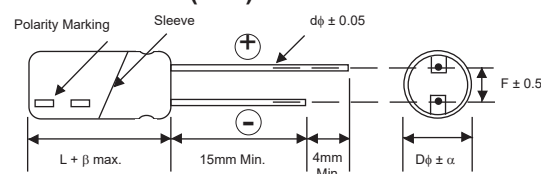
LEAD SPACING AND DIAMETER (mm)

Case Dia. (Dφ)	6.3	8	10
Lead Dia. (Dφ)	0.5	0.6	0.6
Lead Spacing (F)	2.5	3.5	5.0
Dim. α	0.5	0.5	0.5
Dim. β 35 ~ 100V	2.0		

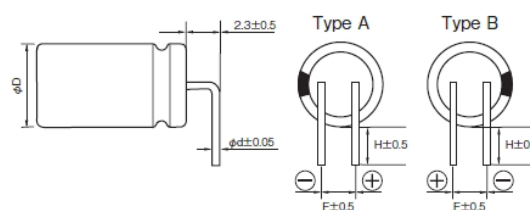
HORIZONTAL MOUNT LEAD FORMING (mm)

Case Dia. (D ϕ)	8		10	
Lead Dia. (ϕ d)	0.6		0.6	
Lead Space (F)	3.5		5.0	
Forming Code	RI	RK	RX	SG
Form Type	A	B	A	B
Lead Length (H)	4.0		3.5	

DIMENSIONS (mm)



Drawing is representative of parts as supplied in bulk or straight lead format, please see taping specification for details on taped format packaging.



PART NUMBER SYSTEM

NRB-XW 101 M 100V 10X30 RK F

Series | Capacitance Code: First 2 characters significant, third character is multiplier | Tolerance Code (M=20%) | Working Voltage (Vdc) | Case Size (DφxL) | Optional Horizontal Mount Lead Forming | RoHS Compliant

PRECAUTIONS

Please review the notes on correct use, safety and precautions found at <https://www.niccomp.com/resource/files/aluminum/AlumApplInfoCautions.pdf>
If in doubt or uncertainty, please review your specific application - process details with NIC's technical support personnel: tpmg@niccomp.com

NRB-XW Series

Radial Leaded High Temperature Long Life Aluminum Electrolytic Capacitors



35V ~ 80V STANDARD VALUES, SPECIFICATIONS AND CASE SIZES (mm)

Part Number	Cap. (μ F)	W.V. (Vdc)	Dissipation Factor +20°C/120Hz	Ripple Current Rating (Arms)		Max. ESR (Ω) +20°C/120Hz	Load Life Hours @+105°C
				+105°C/120Hz	+105°C/100KHz		
NRB-XW181M35V6.3X25F	180	35	0.12	0.605	1.21	1.11	7000
NRB-XW221M35V6.3X30F	220		0.12	0.685	1.37	0.90	7000
NRB-XW331M35V6.3X40F	330		0.12	0.924	1.68	0.60	7000
NRB-XW391M35V6.3X50F	390		0.12	1.110	2.02	0.51	7000
NRB-XW391M35V8X25F	390		0.12	0.951	1.73	0.51	10000
NRB-XW471M35V8X30F	470		0.12	1.11	2.03	0.42	10000
NRB-XW681M35V8X40F	680		0.12	1.41	2.57	0.29	10000
NRB-XW821M35V8X50F	820		0.12	1.82	3.04	0.24	10000
NRB-XW821M35V10X30F	820		0.12	1.48	2.47	0.24	10000
NRB-XW102M35V8X60F	1000		0.12	2.08	3.48	0.20	10000
NRB-XW122M35V10X40F	1200		0.12	1.87	3.12	0.17	10000
NRB-XW152M35V10X50F	1500		0.12	2.21	3.69	0.13	10000
NRB-XW182M35V10X60F	1800		0.12	2.50	4.17	0.11	10000
NRB-XW101M50V6.3X25F	100	50	0.10	0.510	1.02	1.66	7000
NRB-XW121M50V6.3X30F	120		0.10	0.580	1.16	1.38	7000
NRB-XW181M50V6.3X40F	180		0.10	0.710	1.42	0.92	7000
NRB-XW221M50V6.3X50F	220		0.10	0.860	1.72	0.75	7000
NRB-XW221M50V8X25F	220		0.10	0.74	1.48	0.75	10000
NRB-XW271M50V8X30F	270		0.10	0.87	1.74	0.61	10000
NRB-XW391M50V8X40F	390		0.10	1.22	2.23	0.43	10000
NRB-XW471M50V8X50F	470		0.10	1.45	2.65	0.35	10000
NRB-XW471M50V10X30F	470		0.10	1.22	2.22	0.35	10000
NRB-XW561M50V8X60F	560		0.10	1.68	3.07	0.30	10000
NRB-XW681M50V10X40F	680		0.10	1.55	2.82	0.24	10000
NRB-XW821M50V10X50F	820		0.10	2.02	3.37	0.20	10000
NRB-XW102M50V10X60F	1000		0.10	2.31	3.86	0.17	10000
NRB-XW820M63V6.3X25F	82	63	0.09	0.455	0.910	1.82	7000
NRB-XW101M63V6.3X30F	100		0.09	0.515	1.03	1.49	7000
NRB-XW151M63V6.3X40F	150		0.09	0.635	1.27	1.00	7000
NRB-XW181M63V6.3X50F	180		0.09	0.775	1.55	0.83	7000
NRB-XW181M63V8X25F	180		0.09	0.665	1.33	0.83	10000
NRB-XW221M63V8X30F	220		0.09	0.785	1.57	0.68	10000
NRB-XW331M63V8X40F	330		0.09	1.11	2.02	0.45	10000
NRB-XW391M63V8X50F	390		0.09	1.32	2.41	0.38	10000
NRB-XW391M63V10X30F	390		0.09	1.16	2.10	0.38	10000
NRB-XW471M63V8X60F	470		0.09	1.54	2.80	0.32	10000
NRB-XW561M63V10X40F	560		0.09	1.43	2.60	0.27	10000
NRB-XW681M63V10X50F	680		0.09	1.71	3.12	0.22	10000
NRB-XW821M63V10X60F	820		0.09	2.15	3.59	0.16	10000
NRB-XW470M80V6.3X25F	47	80	0.08	0.455	0.91	2.82	7000
NRB-XW560M80V6.3X30F	56		0.08	0.515	1.03	2.37	7000
NRB-XW820M80V6.3X40F	82		0.08	0.635	1.27	1.62	7000
NRB-XW101M80V6.3X50F	100		0.08	0.775	1.55	1.33	7000
NRB-XW101M80V8X25F	100		0.08	0.665	1.33	1.33	10000
NRB-XW121M80V8X30F	120		0.08	0.785	1.57	1.11	10000
NRB-XW181M80V8X40F	180		0.08	1.01	2.02	0.74	10000
NRB-XW221M80V8X50F	220		0.08	1.20	2.41	0.60	10000
NRB-XW221M80V10X30F	220		0.08	1.05	2.10	0.60	10000
NRB-XW271M80V8X60F	270		0.08	1.40	2.80	0.49	10000
NRB-XW271M80V10X40F	270		0.08	1.30	2.60	0.49	10000
NRB-XW391M80V10X50F	390		0.08	1.71	3.12	0.34	10000
NRB-XW471M80V10X60F	470		0.08	1.97	3.59	0.28	10000

NRB-XW Series

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Long Life Aluminum Electrolytic Capacitors



100V STANDARD VALUES, SPECIFICATIONS AND CASE SIZES (mm)

Part Number	Cap. (μ F)	W.V. (Vdc)	Dissipation Factor +20°C/120Hz	Ripple Current Rating (Arms)		Max. ESR (Ω) +20°C/120Hz	Load Life Hours @+105°C
				+105°C/120Hz	+105°C/100KHz		
NRB-XW330M100V6.3X25F	33	100	0.08	0.382	0.91	4.02	7000
NRB-XW390M100V6.3X30F	39		0.08	0.515	1.03	3.40	7000
NRB-XW560M100V6.3X40F	56		0.08	0.635	1.27	2.37	7000
NRB-XW680M100V6.3X50F	68		0.08	0.775	1.55	1.95	7000
NRB-XW820M100V8X25F	82		0.08	0.665	1.33	1.62	10000
NRB-XW101M100V8X30F	100		0.08	0.785	1.57	1.33	10000
NRB-XW121M100V8X40F	120		0.08	1.01	2.02	1.11	10000
NRB-XW151M100V8X50F	150		0.08	1.20	2.41	0.88	10000
NRB-XW151M100V10X30F	150	100	0.08	1.05	2.10	0.88	10000
NRB-XW221M100V8X60F	220		0.08	1.40	2.80	0.60	10000
NRB-XW221M100V10X40F	220		0.08	1.30	2.60	0.60	10000
NRB-XW271M100V10X50F	270		0.08	1.56	3.12	0.49	10000
NRB-XW331M100V10X60F	330		0.08	1.97	3.59	0.40	10000

RIPPLE CURRENT FREQUENCY CORRECTION FACTOR (35V ~ 100V)

Cap. Values	120Hz	500Hz	1KHz	10KHz ~ up
33 μ F	0.42	0.70	0.90	1.00
39 ~ 270 μ F	0.50	0.73	0.92	1.00
330 ~ 680 μ F	0.55	0.77	0.94	1.00
820 ~ 1800 μ F	0.60	0.80	0.96	1.00