

NRE-JX Series

Automotive Radial Leaded Aluminum Electrolytic Capacitors



ULTRA LOW IMPEDANCE, RADIAL LEADS, POLARIZED, ALUMINUM ELECTROLYTIC

FEATURES

- VERY LOW IMPEDANCE & HIGH RIPPLE CURRENT
- LONG LIFE AT 105°C (6000 ~ 8,000 hrs.)
- HIGH STABILITY AT LOW TEMPERATURE
- IDEALLY FOR SWITCHING POWER SUPPLIES & CONVERTORS
- **MEETS THE REQUIREMENTS OF AEC-Q200***

*Contact NIC for supporting test data

CHARACTERISTICS

Rated Voltage Range	16 ~ 100Vdc							
Capacitance Range	68 ~ 10,000μF							
Operating Temperature Range	-55°C ~ +105°C							
Capacitance Tolerance	±20% (M)							
Maximum Leakage Current After 2 Minutes at 20°C	0.01CV or 3μA whichever is greater							
Max. Tan δ at 120Hz/20°C	W.V. (Vdc)	16	25	35	50	63	80	100
	S.V. (Vdc)	20	32	44	63	79	100	125
	Tan δ	0.16	0.14	0.12	0.10	0.09	0.09	0.08
	When capacitance value is greater than 1,000μF add 0.02 for every 1,000μF							
Low Temperature Stability Impedance Ratio @ 120Hz	W.V.	16	25	35	50	63	80	100
	Z-55°C/Z+20°C	3	3	3	3	3	3	3
Load Life Hours Load Life Test at Rated W.V. & 105°C	Case Diameter	Life Hours						
	φ10mm	6,000						
	φ12.5mm ~ φ18mm	8,000						
	Capacitance Change	Within ±30% of initial measured value						
	Tan δ	Less than 300% of specified value						
	Leakage Current	Less than specified value						



PART NUMBER SYSTEM

NRE-JX 102 M 25V 10X20 TB Y E RoHS Compliant

Series
Capacitance Code in μ F
Tolerance Code M=20%
Working Voltage
Case Size (mm)
TB = Tape & Box*
Y E RoHS Compliant

*see tape specification for details

Optional: Suitable for automotive equipment, sourced to special production and inspection at IATF-16949 certified production site

PRECAUTIONS

Please review the notes on correct use, safety and precautions found at <https://www.niccomp.com/wp-content/uploads/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

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STANDARD PRODUCT, SPECIFICATIONS AND CASE SIZES D ϕ x L (mm)

Part Number	Cap. (μ F)	W.V. (Vdc)	Dissipation Factor +20°C/120Hz	Ripple Current Rating (mArms) +105°C/100KHz	Max. Z (Ω) 100KHz		Load Life Hours @+105°C
					+20°C	-10°C	
NRE-JX102M16V10X16F	1000	16	0.16	1180	0.061	0.122	6000
NRE-JX152M16V10X20F	1500		0.16	1490	0.045	0.090	6000
NRE-JX182M16V10X25F	1800		0.16	1710	0.037	0.074	6000
NRE-JX222M16V12.5X20F	2200		0.18	1780	0.038	0.076	8000
NRE-JX332M16V12.5X25F	3300		0.20	2170	0.030	0.060	8000
NRE-JX392M16V12.5X30F	3900		0.20	2540	0.025	0.050	8000
NRE-JX392M16V16X20F	3900		0.20	2210	0.028	0.056	8000
NRE-JX562M16V16X25F	5600		0.24	2620	0.022	0.044	8000
NRE-JX562M16V18X20F	5600		0.24	2490	0.028	0.056	8000
NRE-JX682M16V16X30F	6800		0.26	3060	0.019	0.038	8000
NRE-JX822M16V18X25F	8200		0.30	2790	0.020	0.040	8000
NRE-JX103M16V18X30F	10000		0.34	3240	0.018	0.036	8000
NRE-JX681M25V10X16F	680	25	0.14	1180	0.061	0.122	6000
NRE-JX102M25V10X20F	1000		0.14	1490	0.045	0.090	6000
NRE-JX122M25V10X25F	1200		0.14	1710	0.037	0.074	6000
NRE-JX152M25V12.5X20F	1500		0.14	1780	0.038	0.076	8000
NRE-JX222M25V12.5X25F	2200		0.16	2170	0.030	0.060	8000
NRE-JX272M25V12.5X30F	2700		0.16	2540	0.025	0.050	8000
NRE-JX272M25V16X20F	2700		0.16	2210	0.028	0.056	8000
NRE-JX332M25V18X20F	3300		0.18	2490	0.028	0.056	8000
NRE-JX392M25V16X25F	3900		0.18	2620	0.022	0.044	8000
NRE-JX472M25V16X30F	4700		0.20	3060	0.019	0.038	8000
NRE-JX472M25V18X25F	4700		0.20	2790	0.020	0.040	8000
NRE-JX562M25V18X30F	5600		0.22	3240	0.018	0.036	8000
NRE-JX471M35V10X16F	470	35	0.12	1180	0.061	0.122	6000
NRE-JX681M35V10X20F	680		0.12	1490	0.045	0.090	6000
NRE-JX821M35V10X25F	820		0.12	1710	0.037	0.074	6000
NRE-JX102M35V12.5X20F	1000		0.12	1780	0.038	0.076	8000
NRE-JX122M35V12.5X25F	1200		0.12	2170	0.030	0.060	8000
NRE-JX182M35V12.5X30F	1800		0.12	2540	0.025	0.050	8000
NRE-JX182M35V16X20F	1800		0.12	2210	0.028	0.056	8000
NRE-JX222M35V16X25F	2200		0.14	2620	0.022	0.044	8000
NRE-JX222M35V18X20F	2200		0.14	2490	0.028	0.056	8000
NRE-JX332M35V16X30F	3300		0.16	3060	0.019	0.038	8000
NRE-JX332M35V18X25F	3300		0.16	2790	0.020	0.040	8000
NRE-JX392M35V18X30F	3900		0.16	3240	0.018	0.036	8000
NRE-JX181M50V10X16F	180	50	0.10	850	0.100	0.200	6000
NRE-JX271M50V10X20F	270		0.10	1050	0.075	0.150	6000
NRE-JX331M50V10X25F	330		0.10	1250	0.057	0.114	6000
NRE-JX391M50V12.5X20F	390		0.10	1480	0.059	0.118	8000
NRE-JX561M50V12.5X25F	560		0.10	1840	0.044	0.088	8000
NRE-JX681M50V12.5X30F	680		0.10	2220	0.036	0.072	8000
NRE-JX821M50V16X20F	820		0.10	1840	0.044	0.088	8000
NRE-JX122M50V16X25F	1200		0.10	2240	0.032	0.064	8000
NRE-JX122M50V18X20F	1200		0.10	2150	0.041	0.082	8000
NRE-JX152M50V16X30F	1500		0.10	2700	0.026	0.052	8000
NRE-JX152M50V18X25F	1500		0.10	2610	0.029	0.058	8000
NRE-JX222M50V18X30F	2200		0.12	3000	0.024	0.048	8000
NRE-JX121M63V10X16F	120	63	0.09	600	0.160	0.320	6000
NRE-JX181M63V10X20F	180		0.09	890	0.120	0.240	6000
NRE-JX221M63V10X25F	220		0.09	1050	0.090	0.180	6000
NRE-JX331M63V12.5X20F	330		0.09	1290	0.085	0.170	8000
NRE-JX391M63V12.5X25F	390		0.09	1720	0.066	0.132	8000
NRE-JX471M63V12.5X30F	470		0.09	2090	0.052	0.104	8000
NRE-JX561M63V16X20F	560		0.09	1770	0.059	0.118	8000
NRE-JX821M63V16X25F	820		0.09	2160	0.047	0.094	8000
NRE-JX821M63V18X20F	820		0.09	2290	0.055	0.110	8000
NRE-JX102M63V16X30F	1000		0.09	2670	0.037	0.074	8000

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STANDARD PRODUCT, SPECIFICATIONS AND CASE SIZES D ϕ x L (mm)

Part Number	Cap. (μ F)	W.V. (Vdc)	Dissipation Factor +20°C/120Hz	Ripple Current Rating (mA rms) +105°C/100KHz	Max. Z (Ω) 100KHz		Load Life Hours @+105°C
					+20°C	-10°C	
NRE-JX102M63V18X25F	1000	63	0.09	2590	0.040	0.080	8000
NRE-JX152M63V18X30F	1500		0.09	2950	0.032	0.064	8000
NRE-JX101M80V10X16F	100		0.09	550	0.330	0.81	6000
NRE-JX151M80V10X20F	150		0.09	780	0.240	0.59	6000
NRE-JX181M80V10X25F	180		0.09	970	0.190	0.47	6000
NRE-JX181M80V12.5X20F	180	80	0.09	1120	0.165	0.39	8000
NRE-JX271M80V12.5X25F	270		0.09	1420	0.120	0.28	8000
NRE-JX391M80V12.5X30F	390		0.09	1690	0.097	0.23	8000
NRE-JX391M80V16X20F	390		0.09	1560	0.110	0.26	8000
NRE-JX471M80V18X20F	470		0.09	1660	0.090	0.19	8000
NRE-JX561M80V16X25F	560		0.09	1980	0.081	0.19	8000
NRE-JX681M80V16X30F	680		0.09	2350	0.064	0.15	8000
NRE-JX681M80V18X25F	680		0.09	2100	0.070	0.15	8000
NRE-JX821M80V18X30F	820		0.09	2490	0.058	0.13	8000
NRE-JX680M100V10X16F	68	100	0.08	550	0.330	0.81	6000
NRE-JX101M100V10X20F	100		0.08	780	0.240	0.59	6000
NRE-JX121M100V10X25F	120		0.08	970	0.190	0.47	6000
NRE-JX121M100V12.5X20F	120		0.08	1120	0.165	0.39	8000
NRE-JX181M100V12.5X25F	180		0.08	1420	0.120	0.28	8000
NRE-JX221M100V12.5X30F	220		0.08	1690	0.097	0.23	8000
NRE-JX271M100V16X20F	270		0.08	1560	0.110	0.26	8000
NRE-JX331M100V16X25F	330		0.08	1980	0.081	0.19	8000
NRE-JX331M100V18X20F	330		0.08	1660	0.090	0.19	8000
NRE-JX471M100V16X30F	470		0.08	2350	0.064	0.15	8000
NRE-JX471M100V18X25F	470		0.08	2100	0.070	0.15	8000
NRE-JX561M100V18X30F	560		0.08	2490	0.058	0.13	8000

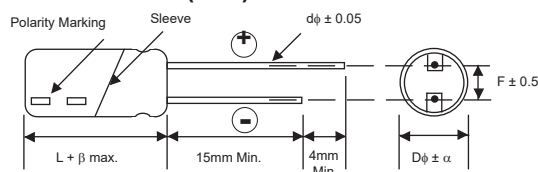
RIPPLE CURRENT FREQUENCY CORRECTION FACTOR

Frequency (Hz)	120	1K	10K	$\leq 100K$
68 ~ 270	0.50	0.73	0.92	1.00
330 ~ 680	0.55	0.77	0.94	1.00
820 ~ 1800	0.60	0.80	0.96	1.00
2200 ~ 10000	0.70	0.85	0.98	1.00

DIAMETER AND LEADSPACE (mm)

Case Dia. (D ϕ)	10	12.5	16	18
Lead Dia. (d ϕ)	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			

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.