

Large Can Aluminum Electrolytic Capacitors

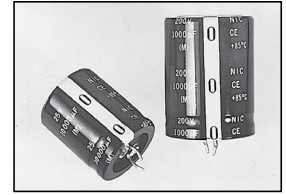
NRLPW Series

FEATURES

- LONG LIFE AT +105°C (3,000 HOURS)
- HIGH RIPPLE CURRENT
- HIGH VOLTAGE (UP TO 500VDC)
- SUITABLE FOR SWITCHING POWER SUPPLIES

RoHS Compliant
includes all homogeneous materials

*See Part Number System for Details



SPECIFICATIONS

Operating Temperature Range		-40 ~ +105°C					-25 ~ +105°C							
Rated Voltage Range		50 ~ 100Vdc					160 ~ 500Vdc							
Rated Capacitance Range		680 ~ 15,000µF					39 ~ 2,700µF							
Capacitance Tolerance		±20% (M)												
Max. Leakage Current (µA) After 5 minutes (20°C)		$3 \times \sqrt{C(\mu F)V}$												
Max. Tan δ at 120Hz/20°C	W.V. (Vdc)	50	63	80	100	160	180	200	220	250	400	420	450	500
	Tan δ max.	0.35	0.3	0.25	0.25	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.25
Surge Voltage	W.V. (Vdc)	50	63	80	100	160	180	200	220	250	400	420	450	500
	S.V. (Vdc)	63	79	100	125	200	225	250	270	300	450	470	500	550
Ripple Current Correction Factors	Frequency (Hz)		60		120		500		1K		10K			
	Multiplier at 85°C	50 ~ 100Vdc	0.90		1.00		1.05		1.10		1.15			
		160 ~ 250Vdc	0.80		1.00		1.20		1.30		1.50			
		400 ~ 500Vdc	0.80		1.00		1.20		1.25		1.40			
	Temperature		+65°C		+85°C		+105°C							
Multiplier		2.1		1.7		1.0								
Impedance Ratio (Low Temperature Stability)	Rated Voltage (VDC)		Z (-25°C)/Z (+20°C)					Z (-25°C)/Z (+20°C)						
	50 ~ 100		3 max.					12 max.						
	160 ~ 250		4 max.					-						
	400 ~ 450		8 max.					-						
	500		12 max.					-						
Load Life Test 50V~100V 2,000 hours at +105°C 160V~500V 3,000 hours at +105°C	Capacitance Change		Within ±20% of initial measured value											
	Tan δ		Less than 200% of specified maximum value											
	Leakage Current		Less than specified maximum value											
Shelf Life Test 1,000 hours at +105°C (no load)	Capacitance Change		Within ±20% of initial measured value											
	Tan δ		Less than 200% of specified maximum value											
	Leakage Current		Less than specified maximum value											
Surge Voltage Test 1000 Cycles of 30 seconds "On" and 5.5 minutes "Off" at 25°C	Capacitance Change		Within ±15% of initial measured value											
	Tan δ		Less than specified maximum value											
	Leakage Current		Less than specified maximum value											
Soldering Effect Refer to JISC5102.8.5	Capacitance Change		Within ±10% of initial measured value											
	Tan δ		Less than specified maximum value											
	Leakage Current		Less than specified maximum value											

MECHANICAL CHARACTERISTICS:

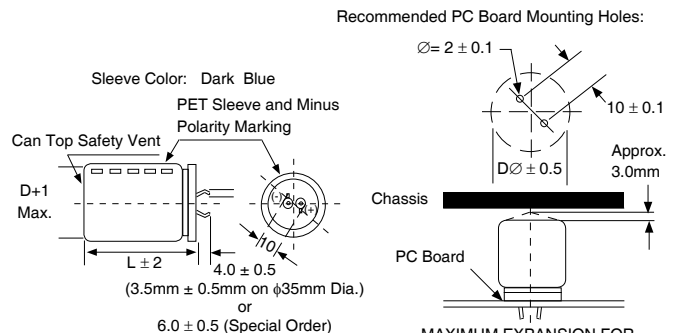
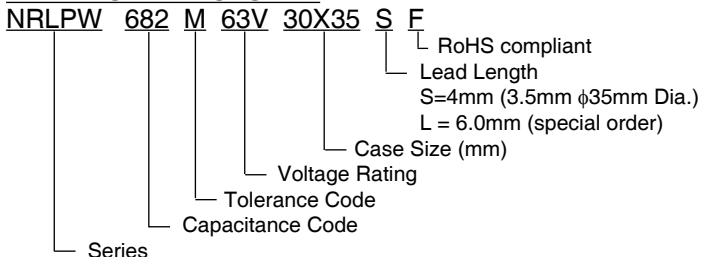
1. Safety Vent:

The capacitors are provided with a pressure vent on the top of can. The vent is designed to rupture in the event that high internal gas pressure is developed by circuit malfunction or mis-use like reverse voltage.

2. Terminal Strength:

Each terminal of the capacitor shall withstand an axial pull force of 4.5Kg for a period 10 seconds or a radial bent force of 2.5Kg for a period of 30 seconds.

PART NUMBER SYSTEM



Notice for Mounting

The space from the top of the can shall be more than (3mm) from chassis or other construction materials so that safety vent has room to expand in case of emergency.

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



Part Number	Voltage (VDC)	Cap (μF)	Case Size D x L (mm)	Dissipation Factor	Max. Leakage Current (μA)	ESR (Ω @ 20°C)		Max. Ripple Current (Arms @ 105°C)		
						120Hz	20KHz	120Hz	10K-50KHz	
NRLPW222M50V20X25SF	50VDC	2200	20X25	0.35	994	0.264	0.204	1.6	1.84	
NRLPW272M50V20X30SF		2700	20X30	0.35	1102	0.215	0.166	1.73	1.98	
NRLPW272M50V22X25SF		2700	22X25	0.35	1102	0.215	0.166	1.73	1.98	
NRLPW332M50V20X35SF		3300	20X35	0.35	1218	0.176	0.136	1.97	2.26	
NRLPW332M50V22X30SF		3300	22X30	0.35	1218	0.176	0.136	1.97	2.26	
NRLPW392M50V20X40SF		3900	20X40	0.35	1324	0.149	0.115	2.22	2.55	
NRLPW392M50V22X35SF		3900	22X35	0.35	1324	0.149	0.115	2.22	2.55	
NRLPW392M50V25X25SF		3900	25X25	0.35	1324	0.149	0.115	2.22	2.55	
NRLPW472M50V20X45SF		4700	20X45	0.35	1454	0.124	0.096	2.43	2.79	
NRLPW472M50V22X40SF		4700	22X40	0.35	1454	0.124	0.096	2.43	2.79	
NRLPW472M50V25X30SF		4700	25X30	0.35	1454	0.124	0.096	2.43	2.79	
NRLPW562M50V22X45SF		5600	22X45	0.35	1587	0.104	0.08	2.75	3.16	
NRLPW562M50V25X35SF		5600	25X35	0.35	1587	0.104	0.08	2.75	3.16	
NRLPW562M50V30X25SF		5600	30X25	0.35	1587	0.104	0.08	2.75	3.16	
NRLPW682M50V22X50SF		6800	22X50	0.35	1749	0.086	0.067	3.3	3.79	
NRLPW682M50V25X40SF		6800	25X40	0.35	1749	0.086	0.067	3.3	3.79	
NRLPW682M50V30X30SF		6800	30X30	0.35	1749	0.086	0.067	3.3	3.79	
NRLPW682M50V35X25SF		6800	35X25	0.35	1749	0.086	0.067	3.3	3.79	
NRLPW822M50V25X45SF		8200	25X45	0.35	1920	0.071	0.055	3.6	4.14	
NRLPW822M50V30X35SF		8200	30X35	0.35	1920	0.071	0.055	3.6	4.14	
NRLPW103M50V25X50SF		10000	25X50	0.35	2121	0.059	0.046	4.05	4.65	
NRLPW103M50V30X40SF		10000	30X40	0.35	2121	0.059	0.046	4.05	4.65	
NRLPW103M50V35X30SF		10000	35X30	0.35	2121	0.059	0.046	4.05	4.65	
NRLPW123M50V30X45SF		12000	30X45	0.35	2323	0.049	0.038	4.56	5.24	
NRLPW123M50V35X35SF		12000	35X35	0.35	2323	0.049	0.038	4.56	5.24	
NRLPW153M50V30X50SF		15000	30X50	0.35	2598	0.039	0.03	4.77	5.48	
NRLPW153M50V35X40SF		15000	35X40	0.35	2598	0.039	0.03	4.77	5.48	
NRLPW152M63V20X25SF		63VDC	1500	20X25	0.3	922	0.332	0.256	1.47	1.69
NRLPW182M63V20X30SF			1800	20X30	0.3	1010	0.277	0.214	1.58	1.81
NRLPW222M63V20X35SF			2200	20X35	0.3	1116	0.227	0.175	1.82	2.09
NRLPW272M63V22X30SF	2700		22X30	0.3	1237	0.185	0.143	2.11	2.42	
NRLPW272M63V25X25SF	2700		25X25	0.3	1237	0.185	0.143	2.11	2.42	
NRLPW332M63V22X35SF	3300		22X35	0.3	1367	0.151	0.117	2.33	2.67	
NRLPW392M63V22X40SF	3900		22X40	0.3	1487	0.128	0.099	2.55	2.93	
NRLPW392M63V25X30SF	3900		25X30	0.3	1487	0.128	0.099	2.55	2.93	
NRLPW392M63V30X25SF	3900		30X25	0.3	1487	0.128	0.099	2.55	2.93	
NRLPW472M63V22X45SF	4700		22X45	0.3	1632	0.106	0.082	2.97	3.41	
NRLPW472M63V25X35SF	4700		25X35	0.3	1632	0.106	0.082	2.97	3.41	
NRLPW562M63V25X40SF	5600		25X40	0.3	1781	0.089	0.069	3.22	3.7	
NRLPW562M63V30X30SF	5600		30X30	0.3	1781	0.089	0.069	3.22	3.7	
NRLPW562M63V35X25SF	5600		35X25	0.3	1781	0.089	0.069	3.22	3.7	
NRLPW682M63V25X45SF	6800		25X45	0.3	1963	0.074	0.057	3.65	4.19	
NRLPW682M63V30X35SF	6800		30X35	0.3	1963	0.074	0.057	3.65	4.19	
NRLPW682M63V35X30SF	6800		35X30	0.3	1963	0.074	0.057	3.65	4.19	



Part Number	Voltage (VDC)	Cap (μF)	Case Size D x L (mm)	Dissipation Factor	Max. Leakage Current (μA)	ESR (Ω @ 20°C)		Max. Ripple Current (Arms @ 105°C)	
						120Hz	20KHz	120Hz	10K~50KHz
NRLPW822M63V30X40SF	63VDC	8200	30X40	0.3	2156	0.061	0.047	4.04	4.64
NRLPW822M63V35X35SF		8200	35X35	0.3	2156	0.061	0.047	4.04	4.64
NRLPW103M63V30X45SF		10000	30X45	0.3	2381	0.05	0.039	4.48	5.15
NRLPW103M63V35X40SF		10000	35X40	0.3	2381	0.05	0.039	4.48	5.15
NRLPW123M63V35X45SF		12000	35X45	0.3	2608	0.042	0.033	4.75	5.46
NRLPW153M63V35X50SF		15000	35X50	0.3	2916	0.034	0.027	5.25	6.03
NRLPW102M80V20X25SF	80VDC	1000	20X25	0.25	848	0.415	0.32	1.24	1.42
NRLPW122M80V20X30SF		1200	20X30	0.25	929	0.346	0.267	1.44	1.65
NRLPW122M80V22X25SF		1200	22X25	0.25	929	0.346	0.267	1.44	1.65
NRLPW152M80V20X30SF		1500	20X30	0.25	1039	0.277	0.214	1.59	1.82
NRLPW182M80V20X35SF		1800	20X35	0.25	1138	0.231	0.178	1.79	2.05
NRLPW182M80V22X30SF		1800	22X30	0.25	1138	0.231	0.178	1.79	2.05
NRLPW182M80V25X25SF		1800	25X25	0.25	1138	0.231	0.178	1.79	2.05
NRLPW222M80V20X40SF		2200	20X40	0.25	1258	0.189	0.146	2.03	2.33
NRLPW222M80V22X35SF		2200	22X35	0.25	1258	0.189	0.146	2.03	2.33
NRLPW272M80V22X40SF		2700	22X40	0.25	1394	0.154	0.119	2.39	2.74
NRLPW272M80V30X25SF		2700	30X25	0.25	1394	0.154	0.119	2.39	2.74
NRLPW332M80V22X50SF		3300	22X50	0.25	1541	0.126	0.097	2.64	3.03
NRLPW332M80V30X30SF		3300	30X30	0.25	1541	0.126	0.097	2.64	3.03
NRLPW332M80V35X25SF		3300	35X25	0.25	1541	0.126	0.097	2.64	3.03
NRLPW392M80V25X45SF		3900	25X45	0.25	1675	0.107	0.083	2.97	3.41
NRLPW392M80V30X30SF		3900	30X30	0.25	1675	0.107	0.083	2.97	3.41
NRLPW472M80V25X50SF		4700	25X50	0.25	1839	0.089	0.069	3.38	3.88
NRLPW472M80V30X35SF		4700	30X35	0.25	1839	0.089	0.069	3.38	3.88
NRLPW472M80V35X30SF		4700	35X30	0.25	1839	0.089	0.069	3.38	3.88
NRLPW562M80V30X40SF		5600	30X40	0.25	2007	0.075	0.058	3.8	4.37
NRLPW562M80V35X35SF		5600	35X35	0.25	2007	0.075	0.058	3.8	4.37
NRLPW682M80V30X50SF		6800	30X50	0.25	2212	0.061	0.047	4.1	4.71
NRLPW682M80V35X40SF		6800	35X40	0.25	2212	0.061	0.047	4.1	4.71
NRLPW822M80V35X45SF		8200	35X45	0.25	2429	0.051	0.04	4.3	4.94
NRLPW681M100V20X25SF	100VDC	680	20X25	0.25	782	0.61	0.47	1.15	1.32
NRLPW821M100V20X30SF		820	20X30	0.25	859	0.506	0.39	1.32	1.51
NRLPW821M100V22X25SF		820	22X25	0.25	859	0.506	0.39	1.32	1.51
NRLPW102M100V20X30SF		1000	20X30	0.25	948	0.415	0.32	1.47	1.69
NRLPW122M100V20X35SF		1200	20X35	0.25	1039	0.346	0.267	1.69	1.94
NRLPW122M100V22X30SF		1200	22X30	0.25	1039	0.346	0.267	1.69	1.94
NRLPW122M100V25X25SF		1200	25X25	0.25	1039	0.346	0.267	1.69	1.94
NRLPW152M100V22X35SF		1500	22X35	0.25	1161	0.277	0.214	1.98	2.27
NRLPW152M100V25X30SF		1500	25X30	0.25	1161	0.277	0.214	1.98	2.27
NRLPW182M100V22X40SF		1800	22X40	0.25	1272	0.231	0.178	2.23	2.56
NRLPW182M100V30X25SF		1800	30X25	0.25	1272	0.231	0.178	2.23	2.56
NRLPW222M100V25X40SF		2200	25X40	0.25	1407	0.189	0.146	2.55	2.93
NRLPW222M100V30X30SF		2200	30X30	0.25	1407	0.189	0.146	2.55	2.93
NRLPW222M100V35X25SF		2200	35X25	0.25	1407	0.189	0.146	2.55	2.93



Part Number	Voltage (VDC)	Cap (µF)	Case Size D x L (mm)	Dissipation Factor	Max. Leakage Current (µA)	ESR (Ω @ 20°C)		Max. Ripple Current (Arms @ 105°C)		
						120Hz	20KHz	120Hz	10K~50KHz	
NRLPW272M100V25X45SF	100VDC	2700	25X45	0.25	1558	0.154	0.119	2.89	3.32	
NRLPW272M100V30X35SF		2700	30X35	0.25	1558	0.154	0.119	2.89	3.32	
NRLPW332M100V25X50SF		3300	25X50	0.25	1723	0.126	0.097	3.3	3.79	
NRLPW332M100V30X40SF		3300	30X40	0.25	1723	0.126	0.097	3.3	3.79	
NRLPW392M100V30X45SF		3900	30X45	0.25	1873	0.107	0.083	3.67	4.22	
NRLPW392M100V35X35SF		3900	35X35	0.25	1873	0.107	0.083	3.67	4.22	
NRLPW472M100V30X50SF		4700	30X50	0.25	2056	0.089	0.069	3.8	4.37	
NRLPW472M100V35X40SF		4700	35X40	0.25	2056	0.089	0.069	3.8	4.37	
NRLPW562M100V35X45SF		5600	35X45	0.25	2244	0.075	0.058	4.05	4.65	
NRLPW331M160V20X25SF		160VDC	330	20X25	0.2	689	1.005	0.774	1.17	1.75
NRLPW391M160V20X25SF	390		20X25	0.2	749	0.851	0.655	1.28	1.92	
NRLPW471M160V20X30SF	470		20X30	0.2	822	0.706	0.544	1.4	2.1	
NRLPW471M160V22X25SF	470		22X25	0.2	822	0.706	0.544	1.4	2.1	
NRLPW561M160V20X35SF	560		20X35	0.2	897	0.593	0.457	1.5	2.25	
NRLPW561M160V22X30SF	560		22X30	0.2	897	0.593	0.457	1.5	2.25	
NRLPW681M160V20X40SF	680		20X40	0.2	989	0.488	0.376	1.7	2.55	
NRLPW681M160V22X30SF	680		22X30	0.2	989	0.488	0.376	1.7	2.55	
NRLPW681M160V25X25SF	680		25X25	0.2	989	0.488	0.376	1.7	2.55	
NRLPW821M160V22X35SF	820		22X35	0.2	1086	0.405	0.312	2	3	
NRLPW821M160V25X30SF	820		25X30	0.2	1086	0.405	0.312	2	3	
NRLPW102M160V22X40SF	1000		22X40	0.2	1200	0.332	0.256	2.2	3.3	
NRLPW102M160V25X35SF	1000		25X35	0.2	1200	0.332	0.256	2.2	3.3	
NRLPW102M160V30X25SF	1000		30X25	0.2	1200	0.332	0.256	2.2	3.3	
NRLPW122M160V25X40SF	1200		25X40	0.2	1314	0.277	0.214	2.3	3.45	
NRLPW122M160V30X30SF	1200		30X30	0.2	1314	0.277	0.214	2.3	3.45	
NRLPW122M160V35X25SF	1200		35X25	0.2	1314	0.277	0.214	2.3	3.45	
NRLPW152M160V25X45SF	1500		25X45	0.2	1469	0.222	0.171	2.5	3.75	
NRLPW152M160V30X35SF	1500		30X35	0.2	1469	0.222	0.171	2.5	3.75	
NRLPW152M160V35X30SF	1500		35X30	0.2	1469	0.222	0.171	2.5	3.75	
NRLPW182M160V30X40SF	1800		30X40	0.2	1609	0.185	0.143	2.7	4.05	
NRLPW182M160V35X35SF	1800		35X35	0.2	1609	0.185	0.143	2.7	4.05	
NRLPW222M160V30X45SF	2200		30X45	0.2	1779	0.151	0.117	2.9	4.35	
NRLPW222M160V35X40SF	2200		35X40	0.2	1779	0.151	0.117	2.9	4.35	
NRLPW272M160V35X45SF	2700		35X45	0.2	1971	0.123	0.095	3.1	4.65	
NRLPW331M180V20X25SF	180VDC		330	20X25	0.2	731	1.005	0.774	1.2	1.8
NRLPW391M180V20X30SF			390	20X30	0.2	794	0.851	0.655	1.28	1.92
NRLPW391M180V22X25SF			390	22X25	0.2	794	0.851	0.655	1.28	1.92
NRLPW471M180V20X35SF			470	20X35	0.2	872	0.706	0.544	1.38	2.07
NRLPW471M180V22X30SF			470	22X30	0.2	872	0.706	0.544	1.38	2.07
NRLPW561M180V20X40SF		560	20X40	0.2	952	0.593	0.457	1.5	2.25	
NRLPW561M180V22X30SF		560	22X30	0.2	952	0.593	0.457	1.5	2.25	
NRLPW561M180V25X25SF		560	25X25	0.2	952	0.593	0.457	1.5	2.25	
NRLPW681M180V20X45SF		680	20X45	0.2	1049	0.488	0.376	1.7	2.55	
NRLPW681M180V22X35SF		680	22X35	0.2	1049	0.488	0.376	1.7	2.55	



Part Number	Voltage (VDC)	Cap (µF)	Case Size D x L (mm)	Dissipation Factor	Max. Leakage Current (µA)	ESR (Ω @ 20°C)		Max. Ripple Current (Arms @ 105°C)		
						120Hz	20KHz	120Hz	10K~50KHz	
NRLPW681M180V25X30SF	180VDC	680	25X30	0.2	1049	0.488	0.376	1.7	2.55	
NRLPW821M180V22X40SF		820	22X40	0.2	1152	0.405	0.312	2	3	
NRLPW821M180V25X35SF		820	25X35	0.2	1152	0.405	0.312	2	3	
NRLPW821M180V30X25SF		820	30X25	0.2	1152	0.405	0.312	2	3	
NRLPW102M180V25X40SF		1000	25X40	0.2	1272	0.332	0.256	2.2	3.3	
NRLPW102M180V30X30SF		1000	30X30	0.2	1272	0.332	0.256	2.2	3.3	
NRLPW102M180V35X25SF		1000	35X25	0.2	1272	0.332	0.256	2.2	3.3	
NRLPW122M180V25X45SF		1200	25X45	0.2	1394	0.277	0.214	2.3	3.45	
NRLPW122M180V30X35SF		1200	30X35	0.2	1394	0.277	0.214	2.3	3.45	
NRLPW122M180V35X30SF		1200	35X30	0.2	1394	0.277	0.214	2.3	3.45	
NRLPW152M180V25X50SF		1500	25X50	0.2	1558	0.222	0.171	2.5	3.75	
NRLPW152M180V30X40SF		1500	30X40	0.2	1558	0.222	0.171	2.5	3.75	
NRLPW152M180V35X30SF		1500	35X30	0.2	1558	0.222	0.171	2.5	3.75	
NRLPW182M180V30X45SF		1800	30X45	0.2	1707	0.185	0.143	2.7	4.05	
NRLPW182M180V35X35SF		1800	35X35	0.2	1707	0.185	0.143	2.7	4.05	
NRLPW222M180V30X50SF		2200	30X50	0.2	1887	0.151	0.117	2.9	4.35	
NRLPW222M180V35X40SF		2200	35X40	0.2	1887	0.151	0.117	2.9	4.35	
NRLPW272M180V35X50SF		2700	35X50	0.2	2091	0.123	0.095	3.1	4.65	
NRLPW271M200V20X25SF		200VDC	270	20X25	0.2	697	1.229	0.946	0.99	1.48
NRLPW331M200V20X30SF			330	20X30	0.2	770	1.005	0.774	1.2	1.8
NRLPW331M200V22X25SF	330		22X25	0.2	770	1.005	0.774	1.2	1.8	
NRLPW391M200V20X30SF	390		20X30	0.2	837	0.851	0.655	1.34	2.01	
NRLPW391M200V22X25SF	390		22X25	0.2	837	0.851	0.655	1.34	2.01	
NRLPW471M200V20X35SF	470		20X35	0.2	919	0.706	0.544	1.48	2.22	
NRLPW471M200V22X30SF	470		22X30	0.2	919	0.706	0.544	1.48	2.22	
NRLPW471M200V25X25SF	470		25X25	0.2	919	0.706	0.544	1.48	2.22	
NRLPW561M200V20X40SF	560		20X40	0.2	1003	0.593	0.457	1.6	2.4	
NRLPW561M200V22X35SF	560		22X35	0.2	1003	0.593	0.457	1.6	2.4	
NRLPW561M200V25X25SF	560		25X25	0.2	1003	0.593	0.457	1.6	2.4	
NRLPW681M200V22X40SF	680		22X40	0.2	1106	0.488	0.376	1.75	2.62	
NRLPW681M200V25X30SF	680		25X30	0.2	1106	0.488	0.376	1.75	2.62	
NRLPW681M200V30X25SF	680		30X25	0.2	1106	0.488	0.376	1.75	2.62	
NRLPW821M200V22X45SF	820		22X45	0.2	1214	0.405	0.312	2.04	3.06	
NRLPW821M200V25X35SF	820		25X35	0.2	1214	0.405	0.312	2.04	3.06	
NRLPW821M200V30X25SF	820		30X25	0.2	1214	0.405	0.312	2.04	3.06	
NRLPW102M200V25X45SF	1000		25X45	0.2	1341	0.332	0.256	2.3	3.45	
NRLPW102M200V30X30SF	1000		30X30	0.2	1341	0.332	0.256	2.3	3.45	
NRLPW122M200V25X50SF	1200		25X50	0.2	1469	0.277	0.214	2.65	3.97	
NRLPW122M200V30X35SF	1200		30X35	0.2	1469	0.277	0.214	2.65	3.97	
NRLPW122M200V35X30SF	1200		35X30	0.2	1469	0.277	0.214	2.65	3.97	
NRLPW152M200V30X45SF	1500		30X45	0.2	1643	0.222	0.171	2.8	4.2	
NRLPW152M200V35X35SF	1500		35X35	0.2	1643	0.222	0.171	2.8	4.2	
NRLPW182M200V30X50SF	1800		30X50	0.2	1800	0.185	0.143	3.08	4.62	
NRLPW182M200V35X40SF	1800		35X40	0.2	1800	0.185	0.143	3.08	4.62	



Part Number	Voltage (VDC)	Cap (μF)	Case Size D x L (mm)	Dissipation Factor	Max. Leakage Current (μA)	ESR (Ω @ 20°C)		Max. Ripple Current (Arms @ 105°C)	
						120Hz	20KHz	120Hz	10K-50KHz
NRLPW222M200V35X45SF	220VDC	2200	35X45	0.2	1989	0.151	0.117	3.48	5.22
NRLPW221M220V20X25SF		220	20X25	0.2	660	1.508	1.16	0.98	1.47
NRLPW271M220V20X30SF		270	20X30	0.2	731	1.229	0.946	1.08	1.62
NRLPW271M220V22X25SF		270	22X25	0.2	731	1.229	0.946	1.08	1.62
NRLPW331M220V20X30SF		330	20X30	0.2	808	1.005	0.774	1.26	1.89
NRLPW331M220V22X25SF		330	22X25	0.2	808	1.005	0.774	1.26	1.89
NRLPW391M220V20X35SF		390	20X35	0.2	878	0.851	0.655	1.34	2.01
NRLPW391M220V22X30SF		390	22X30	0.2	878	0.851	0.655	1.34	2.01
NRLPW391M220V25X25SF		390	25X25	0.2	878	0.851	0.655	1.34	2.01
NRLPW471M220V20X40SF		470	20X40	0.2	964	0.706	0.544	1.48	2.22
NRLPW471M220V22X35SF		470	22X35	0.2	964	0.706	0.544	1.48	2.22
NRLPW471M220V25X25SF		470	25X25	0.2	964	0.706	0.544	1.48	2.22
NRLPW561M220V20X45SF		560	20X45	0.2	1052	0.593	0.457	1.61	2.41
NRLPW561M220V22X40SF		560	22X40	0.2	1052	0.593	0.457	1.61	2.41
NRLPW561M220V25X30SF		560	25X30	0.2	1052	0.593	0.457	1.61	2.41
NRLPW561M220V30X25SF		560	30X25	0.2	1052	0.593	0.457	1.61	2.41
NRLPW681M220V22X45SF		680	22X45	0.2	1160	0.488	0.376	1.78	2.67
NRLPW681M220V25X35SF		680	25X35	0.2	1160	0.488	0.376	1.78	2.67
NRLPW681M220V30X25SF		680	30X25	0.2	1160	0.488	0.376	1.78	2.67
NRLPW821M220V22X50SF		820	22X50	0.2	1274	0.405	0.312	1.93	2.89
NRLPW821M220V25X40SF		820	25X40	0.2	1274	0.405	0.312	1.93	2.89
NRLPW821M220V30X30SF		820	30X30	0.2	1274	0.405	0.312	1.93	2.89
NRLPW821M220V35X25SF		820	35X25	0.2	1274	0.405	0.312	1.93	2.89
NRLPW102M220V25X50SF		1000	25X50	0.2	1407	0.332	0.256	2.33	3.49
NRLPW102M220V30X35SF		1000	30X35	0.2	1407	0.332	0.256	2.33	3.49
NRLPW102M220V35X30SF		1000	35X30	0.2	1407	0.332	0.256	2.33	3.49
NRLPW122M220V30X40SF		1200	30X40	0.2	1541	0.277	0.214	2.5	3.75
NRLPW122M220V35X35SF		1200	35X35	0.2	1541	0.277	0.214	2.5	3.75
NRLPW152M220V30X50SF		1500	30X50	0.2	1723	0.222	0.171	2.76	4.14
NRLPW152M220V35X40SF		1500	35X40	0.2	1723	0.222	0.171	2.76	4.14
NRLPW182M220V35X45SF		1800	35X45	0.2	1887	0.185	0.143	3.11	4.66
NRLPW221M250V20X25SF		250VDC	220	20X25	0.2	703	1.508	1.16	1
NRLPW271M250V20X30SF	270		20X30	0.2	779	1.229	0.946	1.1	1.65
NRLPW271M250V22X25SF	270		22X25	0.2	779	1.229	0.946	1.1	1.65
NRLPW331M250V20X35SF	330		20X35	0.2	861	1.005	0.774	1.2	1.8
NRLPW331M250V22X30SF	330		22X30	0.2	861	1.005	0.774	1.2	1.8
NRLPW331M250V25X25SF	330		25X25	0.2	861	1.005	0.774	1.2	1.8
NRLPW391M250V20X40SF	390		20X40	0.2	936	0.851	0.655	1.3	1.95
NRLPW391M250V22X35SF	390		22X35	0.2	936	0.851	0.655	1.3	1.95
NRLPW391M250V25X25SF	390		25X25	0.2	936	0.851	0.655	1.3	1.95
NRLPW471M250V20X45SF	470		20X45	0.2	1028	0.706	0.544	1.4	2.1
NRLPW471M250V22X40SF	470		22X40	0.2	1028	0.706	0.544	1.4	2.1
NRLPW471M250V25X30SF	470		25X30	0.2	1028	0.706	0.544	1.4	2.1
NRLPW471M250V30X25SF	470		30X25	0.2	1028	0.706	0.544	1.4	2.1
NRLPW561M250V22X45SF	560		22X45	0.2	1122	0.593	0.457	1.5	2.25



Part Number	Voltage (VDC)	Cap (μF)	Case Size D x L (mm)	Dissipation Factor	Max. Leakage Current (μA)	ESR (Ω @ 20°C)		Max. Ripple Current (Arms @ 105°C)		
						120Hz	20KHz	120Hz	10K~50KHz	
NRLPW561M250V25X35SF	250VDC	560	25X35	0.2	1122	0.593	0.457	1.5	2.25	
NRLPW561M250V30X25SF		560	30X25	0.2	1122	0.593	0.457	1.5	2.25	
NRLPW681M250V22X50SF		680	22X50	0.2	1236	0.488	0.376	1.7	2.55	
NRLPW681M250V25X40SF		680	25X40	0.2	1236	0.488	0.376	1.7	2.55	
NRLPW681M250V30X30SF		680	30X30	0.2	1236	0.488	0.376	1.7	2.55	
NRLPW681M250V35X25SF		680	35X25	0.2	1236	0.488	0.376	1.7	2.55	
NRLPW821M250V25X45SF		820	25X45	0.2	1358	0.405	0.312	2	3	
NRLPW821M250V30X35SF		820	30X35	0.2	1358	0.405	0.312	2	3	
NRLPW821M250V35X30SF		820	35X30	0.2	1358	0.405	0.312	2	3	
NRLPW102M250V30X40SF		1000	30X40	0.2	1500	0.332	0.256	2.2	3.3	
NRLPW102M250V35X35SF		1000	35X35	0.2	1500	0.332	0.256	2.2	3.3	
NRLPW122M250V30X45SF		1200	30X45	0.2	1643	0.277	0.214	2.3	3.45	
NRLPW122M250V35X35SF		1200	35X35	0.2	1643	0.277	0.214	2.3	3.45	
NRLPW152M250V35X45SF		1500	35X45	0.2	1837	0.222	0.171	2.5	3.75	
NRLPW182M250V35X50SF		1800	35X50	0.2	2012	0.185	0.143	2.7	4.05	
NRLPW680M400V20X25SF		400VDC	68	20X25	0.2	494	4.877	3.752	0.49	0.68
NRLPW820M400V20X25SF			82	20X25	0.2	543	4.044	3.111	0.57	0.79
NRLPW820M400V22X25SF			82	22X25	0.2	543	4.044	3.111	0.57	0.79
NRLPW101M400V20X30SF	100		20X30	0.2	600	3.316	2.551	0.7	0.98	
NRLPW101M400V22X25SF	100		22X25	0.2	600	3.316	2.551	0.7	0.98	
NRLPW121M400V20X35SF	120		20X35	0.2	657	2.764	2.127	0.75	1.05	
NRLPW121M400V22X30SF	120		22X30	0.2	657	2.764	2.127	0.75	1.05	
NRLPW121M400V25X25SF	120		25X25	0.2	657	2.764	2.127	0.75	1.05	
NRLPW151M400V20X40SF	150		20X40	0.2	734	2.211	1.701	0.88	1.23	
NRLPW151M400V22X35SF	150		22X35	0.2	734	2.211	1.701	0.88	1.23	
NRLPW151M400V25X25SF	150		25X25	0.2	734	2.211	1.701	0.88	1.23	
NRLPW181M400V22X35SF	180		22X35	0.2	804	1.843	1.418	0.95	1.33	
NRLPW181M400V25X30SF	180		25X30	0.2	804	1.843	1.418	0.95	1.33	
NRLPW181M400V30X25SF	180		30X25	0.2	804	1.843	1.418	0.95	1.33	
NRLPW221M400V22X45SF	220		22X45	0.2	889	1.508	1.16	1.1	1.54	
NRLPW221M400V25X35SF	220		25X35	0.2	889	1.508	1.16	1.1	1.54	
NRLPW221M400V30X25SF	220		30X25	0.2	889	1.508	1.16	1.1	1.54	
NRLPW271M400V22X50SF	270		22X50	0.2	985	1.229	0.946	1.22	1.7	
NRLPW271M400V25X40SF	270		25X40	0.2	985	1.229	0.946	1.22	1.7	
NRLPW271M400V30X30SF	270		30X30	0.2	985	1.229	0.946	1.22	1.7	
NRLPW271M400V35X25SF	270		35X25	0.2	985	1.229	0.946	1.22	1.7	
NRLPW331M400V25X45SF	330		25X45	0.2	1089	1.005	0.774	1.44	2.01	
NRLPW331M400V30X35SF	330		30X35	0.2	1089	1.005	0.774	1.44	2.01	
NRLPW331M400V35X30SF	330		35X30	0.2	1089	1.005	0.774	1.44	2.01	
NRLPW391M400V25X50SF	390		25X50	0.2	1184	0.851	0.655	1.55	2.17	
NRLPW391M400V30X40SF	390		30X40	0.2	1184	0.851	0.655	1.55	2.17	
NRLPW391M400V35X30SF	390		35X30	0.2	1184	0.851	0.655	1.55	2.17	
NRLPW471M400V30X45SF	470		30X45	0.2	1300	0.706	0.544	1.68	2.35	
NRLPW471M400V35X35SF	470		35X35	0.2	1300	0.706	0.544	1.66	2.35	



Part Number	Voltage (VDC)	Cap (μF)	Case Size D x L (mm)	Dissipation Factor	Max. Leakage Current (μA)	ESR (Ω @ 20°C)		Max. Ripple Current (Arms @ 105°C)	
						120Hz	20KHz	120Hz	10K-50KHz
NRLPW561M400V30X50SF	400VDC	560	30X50	0.2	1419	0.593	0.457	1.9	2.66
NRLPW561M400V35X40SF		560	35X40	0.2	1419	0.593	0.457	1.9	2.66
NRLPW681M400V35X45SF		680	35X45	0.2	1564	0.488	0.376	2.12	2.96
NRLPW680M420V20X25SF	420VDC	68	20X25	0.2	506	4.877	3.752	0.5	0.7
NRLPW820M420V20X25SF		82	20X25	0.2	556	4.044	3.111	0.64	0.89
NRLPW820M420V22X25SF		82	22X25	0.2	556	4.044	3.111	0.64	0.89
NRLPW101M420V20X30SF		100	20X30	0.2	614	3.316	2.551	0.66	0.92
NRLPW101M420V22X25SF		100	22X25	0.2	614	3.316	2.551	0.66	0.92
NRLPW101M420V25X25SF		100	25X25	0.2	614	3.316	2.551	0.66	0.92
NRLPW121M420V20X35SF		120	20X35	0.2	673	2.764	2.127	0.81	1.13
NRLPW121M420V22X30SF		120	22X30	0.2	673	2.764	2.127	0.81	1.13
NRLPW121M420V25X25SF		120	25X25	0.2	673	2.764	2.127	0.81	1.13
NRLPW151M420V20X40SF		150	20X40	0.2	752	2.211	1.701	0.84	1.17
NRLPW151M420V22X35SF		150	22X35	0.2	752	2.211	1.701	0.84	1.17
NRLPW151M420V25X30SF		150	25X30	0.2	752	2.211	1.701	0.84	1.17
NRLPW151M420V30X25SF		150	30X25	0.2	752	2.211	1.701	0.84	1.17
NRLPW181M420V20X45SF		180	20X45	0.2	824	1.843	1.418	0.91	1.27
NRLPW181M420V22X40SF		180	22X40	0.2	824	1.843	1.418	0.91	1.27
NRLPW181M420V25X30SF		180	25X30	0.2	824	1.843	1.418	0.91	1.27
NRLPW181M420V30X25SF		180	30X25	0.2	824	1.843	1.418	0.91	1.27
NRLPW221M420V22X45SF		220	22X45	0.2	911	1.508	1.16	1.05	1.47
NRLPW221M420V25X35SF		220	25X35	0.2	911	1.508	1.16	1.05	1.47
NRLPW221M420V30X30SF		220	30X30	0.2	911	1.508	1.16	1.05	1.47
NRLPW221M420V35X25SF		220	35X25	0.2	911	1.508	1.16	1.05	1.47
NRLPW271M420V25X40SF		270	25X40	0.2	1010	1.229	0.946	1.25	1.75
NRLPW271M420V30X30SF		270	30X30	0.2	1010	1.229	0.946	1.25	1.75
NRLPW271M420V35X25SF		270	35X25	0.2	1010	1.229	0.946	1.25	1.75
NRLPW331M420V25X50SF		330	25X50	0.2	1116	1.005	0.774	1.42	1.98
NRLPW331M420V30X35SF		330	30X35	0.2	1116	1.005	0.774	1.42	1.98
NRLPW331M420V35X30SF		330	35X30	0.2	1116	1.005	0.774	1.42	1.98
NRLPW391M420V30X40SF		390	30X40	0.2	1214	0.851	0.655	1.61	2.25
NRLPW391M420V35X35SF		390	35X35	0.2	1214	0.851	0.655	1.61	2.25
NRLPW471M420V30X45SF		470	30X45	0.2	1332	0.706	0.544	1.86	2.6
NRLPW471M420V35X40SF		470	35X40	0.2	1332	0.706	0.544	1.86	2.6
NRLPW561M420V35X45SF		560	35X45	0.2	1454	0.593	0.457	2.1	2.94
NRLPW681M420V35X50SF		680	35X50	0.2	1603	0.488	0.376	2.2	3.08
NRLPW560M450V20X25SF	450VDC	56	20X25	0.2	476	5.921	4.555	0.44	0.61
NRLPW680M450V20X25SF		68	20X25	0.2	524	4.877	3.752	0.5	0.7
NRLPW680M450V22X25SF		68	22X25	0.2	524	4.877	3.752	0.5	0.7
NRLPW820M450V20X30SF		82	20X30	0.2	576	4.044	3.111	0.64	0.89
NRLPW820M450V22X25SF		82	22X25	0.2	576	4.044	3.111	0.64	0.89
NRLPW101M450V20X35SF		100	20X35	0.2	636	3.316	2.551	0.69	0.96
NRLPW101M450V22X30SF		100	22X30	0.2	636	3.316	2.551	0.69	0.96
NRLPW101M450V25X25SF		100	25X25	0.2	636	3.316	2.551	0.69	0.96
NRLPW121M450V20X35SF		120	20X35	0.2	697	2.764	2.127	0.72	1



Part Number	Voltage (VDC)	Cap (μF)	Case Size D x L (mm)	Dissipation Factor	Max. Leakage Current (μA)	ESR (Ω @ 20°C)		Max. Ripple Current (Arms @ 105°C)	
						120Hz	20KHz	120Hz	10K-50KHz
NRLPW121M450V22X30SF	450VDC	120	22X30	0.2	697	2.764	2.127	0.72	1
NRLPW121M450V25X25SF		120	25X25	0.2	697	2.764	2.127	0.72	1
NRLPW151M450V20X45SF		150	20X45	0.2	779	2.211	1.701	0.79	1.1
NRLPW151M450V22X35SF		150	22X35	0.2	779	2.211	1.701	0.79	1.1
NRLPW151M450V25X30SF		150	25X30	0.2	779	2.211	1.701	0.79	1.1
NRLPW151M450V30X25SF		150	30X25	0.2	779	2.211	1.701	0.79	1.1
NRLPW181M450V22X40SF		180	22X40	0.2	853	1.843	1.418	0.87	1.21
NRLPW181M450V25X35SF		180	25X35	0.2	853	1.843	1.418	0.87	1.21
NRLPW181M450V30X25SF		180	30X25	0.2	853	1.843	1.418	0.87	1.21
NRLPW221M450V22X50SF		220	22X50	0.2	943	1.508	1.16	1.05	1.47
NRLPW221M450V25X40SF		220	25X40	0.2	943	1.508	1.16	1.05	1.47
NRLPW221M450V30X30SF		220	30X30	0.2	943	1.508	1.16	1.05	1.47
NRLPW221M450V35X25SF		220	35X25	0.2	943	1.508	1.16	1.05	1.47
NRLPW271M450V25X45SF		270	25X45	0.2	1045	1.229	0.946	1.23	1.72
NRLPW271M450V30X35SF		270	30X35	0.2	1045	1.229	0.946	1.23	1.72
NRLPW271M450V35X30SF		270	35X30	0.2	1045	1.229	0.946	1.23	1.72
NRLPW331M450V25X50SF		330	25X50	0.2	1156	1.005	0.774	1.38	1.93
NRLPW331M450V30X40SF		330	30X40	0.2	1156	1.005	0.774	1.38	1.93
NRLPW331M450V35X30SF		330	35X30	0.2	1156	1.005	0.774	1.38	1.93
NRLPW391M450V30X45SF		390	30X45	0.2	1256	0.851	0.655	1.61	2.25
NRLPW391M450V35X35SF		390	35X35	0.2	1256	0.851	0.655	1.61	2.25
NRLPW471M450V30X50SF		470	30X50	0.2	1379	0.706	0.544	1.78	2.49
NRLPW471M450V35X40SF		470	35X40	0.2	1379	0.706	0.544	1.78	2.49
NRLPW561M450V35X45SF		560	35X45	0.2	1505	0.593	0.457	1.99	2.78
NRLPW390M500V20X25SF	500VDC	39	20X25	0.25	418	10.628	8.176	0.39	0.54
NRLPW470M500V20X30SF		47	20X30	0.25	459	8.819	6.784	0.46	0.64
NRLPW470M500V22X25SF		47	22X25	0.25	459	8.819	6.784	0.44	0.61
NRLPW560M500V20X35SF		56	20X35	0.25	501	7.402	5.694	0.52	0.72
NRLPW560M500V22X30SF		56	22X30	0.25	501	7.402	5.694	0.51	0.71
NRLPW680M500V20X40SF		68	20X40	0.25	553	6.096	4.69	0.6	0.84
NRLPW680M500V22X30SF		68	22X30	0.25	553	6.096	4.69	0.56	0.78
NRLPW680M500V25X25SF		68	25X25	0.25	553	6.096	4.69	0.55	0.77
NRLPW820M500V20X45SF		82	20X45	0.25	607	5.055	3.889	0.68	0.95
NRLPW820M500V22X35SF		82	22X35	0.25	607	5.055	3.889	0.68	0.95
NRLPW820M500V25X30SF		82	25X30	0.25	607	5.055	3.889	0.64	0.89
NRLPW820M500V30X25SF		82	30X25	0.25	607	5.055	3.889	0.63	0.88
NRLPW101M500V22X40SF		100	22X40	0.25	670	4.145	3.189	0.77	1.07
NRLPW101M500V25X35SF		100	25X35	0.25	670	4.145	3.189	0.74	1.03
NRLPW101M500V30X25SF		100	30X25	0.25	670	4.145	3.189	0.69	0.96
NRLPW121M500V22X50SF		120	22X50	0.25	734	3.454	2.657	0.87	1.21
NRLPW121M500V25X35SF		120	25X35	0.25	734	3.454	2.657	0.81	1.13
NRLPW121M500V30X30SF		120	30X30	0.25	734	3.454	2.657	0.81	1.13
NRLPW121M500V35X25SF		120	35X25	0.25	734	3.454	2.657	0.78	1.09
NRLPW151M500V25X45SF		150	25X45	0.25	821	2.764	2.127	0.97	1.35



Part Number	Voltage (VDC)	Cap (μF)	Case Size D x L (mm)	Dissipation Factor	Max. Leakage Current (μA)	ESR (Ω @ 20°C)		Max. Ripple Current (Arms @ 105°C)	
						120Hz	20KHz	120Hz	10K-50KHz
NRLPW151M500V30X35SF	500VDC	150	30X35	0.25	821	2.764	2.127	0.96	1.34
NRLPW151M500V35X30SF		150	35X30	0.25	821	2.764	2.127	0.92	1.28
NRLPW181M500V25X50SF		180	25X50	0.25	900	2.303	1.772	1.1	1.54
NRLPW181M500V30X40SF		180	30X40	0.25	900	2.303	1.772	1.07	1.49
NRLPW181M500V35X30SF		180	35X30	0.25	900	2.303	1.772	1	1.4
NRLPW221M500V30X45SF		220	30X45	0.25	994	1.884	1.45	1.22	1.7
NRLPW221M500V35X40SF		220	35X40	0.25	994	1.884	1.45	1.21	1.69
NRLPW271M500V35X40SF		270	35X40	0.25	1102	1.536	1.182	1.32	1.84
NRLPW331M500V35X45SF		330	35X45	0.25	1218	1.256	0.967	1.5	2.1
NRLPW391M500V35X55SF		390	35X55	0.25	1324	1.063	0.818	1.89	2.64
NRLPW471M500V35X60SF		470	35X60	0.25	1454	0.882	0.679	2.11	2.95