



Issued: November 21st, 2022
SUB: EOL Notice

Product Type: Radial Leaded Aluminum Electrolytic Capacitors
NIC Series: NRSG Series
Product Specification: <http://www.niccomp.com/products/catalog/nrsg.pdf>

Notification: End of Life Notification

The following is notice of end of life for the NRSG series of radial leaded aluminum electrolytic capacitors. The end of life notification applies to all packaging and lead configurations.

Effective: November 21st, 2022

Last Order Date: For 63V ~ 100V parts 04/28/2023, for 6.3V ~ 50V parts 12/31/2024

Last Ship Date: For 63V ~ 100V parts 12/31/2023, for 6.3V ~ 50V parts 12/31/2025,

Link to complete list of part numbers: [PART NUMBER LIST \(Excel\)](#)

Reason for Discontinuation: Diminishing Demand

Nippon EOL Part Numbers	Capacitance	Voltage Rating	Case Size	Possible Alternative	Comments
NRSG390M6.3V4X7_F	39	6.3	4X7	N/A	
NRSG680M6.3V5X7_F	68	6.3	5X7	NRZJ680M25V5X11F	Higher Profile & Voltage
NRSG151M6.3V5X11_F	150	6.3	5X11	NRZJ151M10V5X11F	
NRSG151M6.3V6.3X7_F	150	6.3	6.3X7	NRZJ151M25V6.3X11F	Higher Profile & Voltage
NRSG221M6.3V8X7_F	220	6.3	8X7	NRSH221M35V8x11.5F	Higher Profile & Voltage
NRSG331M6.3V6.3X11_F	330	6.3	6.3X11	NRSH331M10V6.3x11_F	Higher Voltage Rating
NRSG561M6.3V8X11.5_F	560	6.3	8X11.5	NRZJ561M10V8X11.5_F	Higher Voltage Rating
NRSG821M6.3V8X16_F	820	6.3	8X16	NRSH821M6.3V8x11.5F	
NRSG102M6.3V10X12.5_F	1000	6.3	10X12.5	NRSH102M10V10x12.5_F	Higher Voltage Rating
NRSG122M6.3V10X16_F	1200	6.3	10X16	NRSH122M6.3V10x12.5F	
NRSG122M6.3V8X20_F	1200	6.3	8X20	NRSH122M6.3V8x16F	
NRSG152M6.3V10X20_F	1500	6.3	10X20	NRSH152M16V10x20F	Higher Voltage Rating
NRSG222M6.3V10X20_F	2200	6.3	10X20	NRSH222M6.3V10x20_F	
NRSG222M6.3V10X23_F	2200	6.3	10X23	NRSH222M10V10x23_F	Higher Voltage Rating
NRSG332M6.3V12.5X20_F	3300	6.3	12.5X20	NRSH332M10V12.5x20_F	Higher Voltage Rating
NRSG392M6.3V12.5X25_F	3900	6.3	12.5X25	NRSH392M10V12.5x25_F	Higher Voltage Rating
NRSG472M6.3V12.5X30_F	4700	6.3	12.5X30	NRSH472M10V12.5x30_F	Higher Voltage Rating
NRSG562M6.3V12.5X35_F	5600	6.3	12.5X35	NRSH562M10V12.5x35_F	Higher Voltage Rating
NRSG562M6.3V16X20_F	5600	6.3	16X20	NRZJ562M10V16X25F	Higher Profile & Voltage
NRSG562M6.3V16X21_F	5600	6.3	16x21	NRZJ562M10V16X25F	Higher Profile & Voltage
NRSG682M6.3V16X25_F	6800	6.3	16X25	NRSH682M10V16x25_F	Higher Voltage Rating
NRSG270M10V4X7_F	27	10	4X7	N/A	
NRSG560M10V5X7_F	56	10	5X7	NRSZ560M16V5x11F	Higher Profile & Voltage
NRSG101M10V5X11_F	100	10	5X11	NRSH101M16V5x11F	
NRSG121M10V6.3X7_F	120	10	6.3X7	NRSZ121M16V6.3x11F	Higher Profile & Voltage
NRSG181M10V8X7_F	180	10	8X7	NRZJ181M35V8x11.5F	Higher Profile & Voltage
NRSG221M10V6.3X11_F	220	10	6.3X11	NRSH221M16V6.3x11_F	
NRSG471M10V8X11.5_F	470	10	8X11.5	NRSH471M16V8x11.5_F	
NRSG471M10V8X12.5_F	470	10	8X12.5	NRSH471M16V8x11.5_F	
NRSG681M10V10X12.5_F	680	10	10X12.5	NRSH681M16V10x12.5_F	
NRSG681M10V8X16_F	680	10	8X16	NRSH681M16V8x16_F	
NRSG102M10V10X16_F	1000	10	10X16	NRSH102M16V10x16_F	
NRSG102M10V8X20_F	1000	10	8X20	NRSH102M16V8x20_F	
NRSG122M10V10X20_F	1200	10	10X20	NRZJ122M10V10X16F	
NRSG152M10V10X20_F	1500	10	10X20	NRSH152M16V10x20_F	



Nippon EOL Part Numbers	Capacitance	Voltage Rating	Case Size	Possible Alternative	Comments
NRSG152M10V10X23_F	1500	10	10X23	NRSH152M16V10x20_F	
NRSG222M10V12.5X20_F	2200	10	12.5X20	NRSH222M16V12.5x20_F	
NRSG332M10V12.5X25_F	3300	10	12.5X25	NRZJ332M10V12.5X25F	
NRSG392M10V12.5X30_F	3900	10	12.5X30	NRSH392M10V12.5x25_F	
NRSG392M10V16X20_F	3900	10	16X20	N/A	
NRSG392M10V16x21_F	3900	10	16x21	N/A	
NRSG472M10V12.5X35_F	4700	10	12.5X35	NRSH472M10V12.5x30_F	
NRSG562M10V16X25_F	5600	10	16X25	NRZJ562M10V16X25F	
NRSG180M16V4X7_F	18	16	4X7	N/A	
NRSG330M16V5X7_F	33	16	5X7	NRE-JL330M25V5X11F	Higher Profile & Voltage
NRSG560M16V5X11_F	56	16	5X11	NRSZ560M16V5x11F	
NRSG680M16V6.3X7_F	68	16	6.3X7	NRSZ680M25V6.3x11F	Higher Profile & Voltage
NRSG121M16V6.3X11_F	120	16	6.3X11	NRSZ121M16V6.3x11F	
NRSG121M16V8X7_F	120	16	8X7	NRZJ121M50V8X11.5F	Higher Profile & Voltage
NRSG331M16V8X11.5_F	330	16	8X11.5	NRSH331M25V8x11.5F	
NRSG331M16V8X12.5_F	330	16	8X12.5	NRSH331M25V8x11.5F	
NRSG471M16V10X12.5_F	470	16	10X12.5	NRSH471M25V10x12.5F	
NRSG471M16V8X16_F	470	16	8X16	NRSH471M16V8x11.5_F	
NRSG681M16V10X16_F	680	16	10X16	NRSH681M25V10x16F	
NRSG681M16V8X20_F	680	16	8X20	NRSH681M16V8x16_F	
NRSG102M16V10X20_F	1000	16	10X20	NRSH102M16V10x16_F	
NRSG122M16V10X20_F	1200	16	10X20	NRZJ122M25V10X25F	Higher Profile & Voltage
NRSG122M16V10X23_F	1200	16	10X23	NRZJ122M25V10X25F	Higher Profile & Voltage
NRSG152M16V12.5X20_F	1500	16	12.5X20	NRSH152M16V10x20_F	
NRSG222M16V12.5X25_F	2200	16	12.5X25	NRSH222M16V12.5x20_F	
NRSG272M16V12.5X30_F	2700	16	12.5X30	NRSH272M16V12.5x25_F	
NRSG272M16V16X20_F	2700	16	16X20	NRSZ272M16V16x25F	Higher Profile
NRSG272M16V16x21_F	2700	16	16x21	NRSZ272M16V16x25F	Higher Profile
NRSG332M16V12.5X35_F	3300	16	12.5X35	NRSH332M16V12.5x30_F	
NRSG392M16V16X25_F	3900	16	16X25	NRSZ392M16V16x31.5F	Higher Profile
NRSG150M25V4X7_F	15	25	4X7	N/A	
NRSG270M25V5X7_F	27	25	5X7	NRZJ270M50V5X11F	Higher Profile & Voltage
NRSG470M25V5X11_F	47	25	5X11	NRE-JL470M25V5X11F	
NRSG560M25V6.3X7_F	56	25	6.3X7	N/A	
NRSG101M25V6.3X11_F	100	25	6.3X11	NRSH101M35V6.3x11F	
NRSG101M25V8X7_F	100	25	8X7	NRSH101M50V8x11.5F	Higher Profile & Voltage
NRSG221M25V8X11.5_F	220	25	8X11.5	NRSH221M35V8x11.5F	
NRSG221M25V8X12.5_F	220	25	8X12.5	NRSH221M35V8x11.5F	
NRSG331M25V10X12.5_F	330	25	10X12.5	NRSH331M35V10x12.5F	
NRSG331M25V8X16_F	330	25	8X16	NRSH331M25V8x11.5_F	
NRSG471M25V10X16_F	470	25	10X16	NRSH471M25V10x12.5_F	
NRSG471M25V8X20_F	470	25	8X20	N/A	
NRSG681M25V10X20_F	680	25	10X20	NRSH681M25V10x16_F	
NRSG821M25V10X20_F	820	25	10X20	NRSH821M25V10x20_F	
NRSG821M25V10X23_F	820	25	10X23	NRSH821M25V10x20_F	
NRSG102M25V12.5X20_F	1000	25	12.5X20	NRSH102M25V10x23_F	Higher Profile
NRSG152M25V12.5X25_F	1500	25	12.5X25	NRSH152M25V12.5x20_F	
NRSG182M25V12.5X30_F	1800	25	12.5X30	NRSH182M25V12.5x25_F	
NRSG182M25V16X21_F	1800	25	16X21	NRZJ182M35V16X25F	Higher Profile & Voltage
NRSG222M25V12.5X35_F	2200	25	12.5X35	NRSH222M25V12.5x30_F	
NRSG272M25V16X25_F	2700	25	16X25	NRSZ272M25V16x31.5F	Higher Profile
NRSG100M35V4X7_F	10	35	4X7	N/A	
NRSG180M35V5X7_F	18	35	5X7	N/A	



Nippon EOL Part Numbers	Capacitance	Voltage Rating	Case Size	Possible Alternative	Comments
NRSG330M35V5X11_F	33	35	5X11	NRE-JL330M35V5X11F	
NRSG390M35V6.3X7_F	39	35	6.3X7	N/A	
NRSG560M35V6.3X11_F	56	35	6.3X11	N/A	
NRSG560M35V8X7_F	56	35	8X7	N/A	
NRSG151M35V8X11.5_F	150	35	8X11.5	NRSZ151M35V8x15F	Higher Profile
NRSG151M35V8X12.5_F	150	35	8X12.5	NRSZ151M35V8x15F	Higher Profile
NRSG221M35V10X12.5_F	220	35	10X12.5	NRZJ221M50V10X12.5_F	
NRSG221M35V8X16_F	220	35	8X16	NRZJ221M35V8X16F	
NRSG271M35V8X20_F	270	35	8X20	NRZJ271M50V8X20_F	
NRSG331M35V10X16_F	330	35	10X16	NRZJ331M50V10X16_F	
NRSG471M35V10X20_F	470	35	10X20	NRZJ471M50V10X20_F	
NRSG561M35V10X23_F	560	35	10X23	NRZJ561M50V10X25_F	Higher Profile
NRSG681M35V12.5X20_F	680	35	12.5X20	NRZJ681M50V12.5X20_F	
NRSG102M35V12.5X25_F	1000	35	12.5X25	NRZJ102M35V12.5X20_F	
NRSG122M35V12.5X30_F	1200	35	12.5X30	NRZJ122M35V12.5X25_F	
NRSG122M35V16X21_F	1200	35	16X21	NRZJ122M50V16X20_F	
NRSG152M35V12.5X35_F	1500	35	12.5X35	NRZJ152M35V12.5X30_F	
NRSG182M35V16X25_F	1800	35	16X25	NRZJ182M35V16X25F	
NRSG5R6M50V4X7_F	5.6	50	4X7	N/A	
NRSG100M50V5X7_F	10	50	5X7	N/A	
NRSG220M50V5X11_F	22	50	5X11	N/A	
NRSG220M50V6.3X7_F	22	50	6.3X7	N/A	
NRSG330M50V8X7_F	33	50	8X7	N/A	
NRSG470M50V6.3X11_F	47	50	6.3X11	NRZJ470M63V6.3X11F	
NRSG560M50V6.3X11_F	56	50	6.3X11	NRSH560M50V6.3x11_F	
NRSG101M50V8X12.5_F	100	50	8X12.5	NRSH101M50V8x11.5_F	
NRSG121M50V8X16_F	120	50	8X16	NRSH121M50V8x16_F	
NRSG151M50V10X12.5_F	150	50	10X12.5	NRSH151M50V10x12.5_F	
NRSG181M50V8X20_F	180	50	8X20	NRSH181M50V8x20_F	
NRSG221M50V10X16_F	220	50	10X16	NRSH221M50V10x16_F	
NRSG271M50V10X20_F	270	50	10X20	NRSH271M50V10x20_F	
NRSG331M50V10X23_F	330	50	10X23	NRSH331M50V10x23_F	
NRSG471M50V12.5X20_F	470	50	12.5X20	NRSH471M50V12.5x20_F	
NRSG561M50V12.5X25_F	560	50	12.5X25	NRSH561M50V12.5x25_F	
NRSG681M50V12.5X30_F	680	50	12.5X30	NRSH681M50V12.5x30_F	
NRSG821M50V12.5X35_F	820	50	12.5X35	NRSH821M50V12.5x35_F	
NRSG821M50V16X20_F	820	50	16X20	NRSH821M50V16x20_F	
NRSG821M50V16x21_F	820	50	16x21	NRZJ821M50V16X20F	
NRSG102M50V16X25_F	1000	50	16X25	NRSH102M50V16x25_F	
NRSG150M63V5X11_F	15	63	5X11	N/A	
NRSG330M63V6.3X11_F	33	63	6.3X11	NRSH330M80V6.3x11F	
NRSG560M63V8X11.5_F	56	63	8X11.5	NRSH560M80V8x11.5F	
NRSG560M63V8X12.5_F	56	63	8X12.5	NRZJ560M100V10X12.5F	
NRSG820M63V10X12.5_F	82	63	10X12.5	NRSH820M80V10x12.5F	
NRSG820M63V8X16_F	82	63	8X16	NRSH820M63V8x11.5_F	
NRSG121M63V10X16_F	120	63	10X16	NRZJ121M63V10X12.5_F	
NRSG121M63V8X20_F	120	63	8X20	NRZJ121M63V8X16_F	
NRSG181M63V10X20_F	180	63	10X20	NRSH181M63V10x16_F	
NRSG181M63V12.5X16_F	180	63	12.5X16	NRSH181M63V10x16_F	Smaller Dia., Same LS
NRSG221M63V10X23_F	220	63	10X23	NRZJ221M63V10X16F	
NRSG271M63V12.5X20_F	270	63	12.5X20	NRSH271M63V12.5x16_F	
NRSG331M63V12.5X25_F	330	63	12.5X25	NRZJ331M80V12.5X20F	Higher Profile & Voltage
NRSG471M63V12.5X30_F	470	63	12.5X30	NRSH471M63V12.5x25_F	



Nippon EOL Part Numbers	Capacitance	Voltage Rating	Case Size	Possible Alternative	Comments
NRSG471M63V16X20_F	470	63	16X20	NRZJ471M80V16X20F	Higher Profile & Voltage
NRSG561M63V12.5X35_F	560	63	12.5X35	NRSH561M63V12.5x30_F	
NRSG561M63V16X25_F	560	63	16X25	NRSH561M63V16x20_F	
NRSG681M63V12.5X40_F	680	63	12.5X40	NRSH681M63V12.5x35_F	
NRSG681M63V18X20_F	680	63	18X20	NRZJ681M80V18X20F	Higher Voltage Rating
NRSG821M63V16X31.5_F	820	63	16X31.5	NRSH821M63V16x25_F	
NRSG821M63V18X25_F	820	63	18X25	NRSH821M63V18x20_F	
NRSG102M63V16X35.5_F	1000	63	16X35.5	NRZJ102M63V16X25_F	Smaller Dia., Same LS
NRSG102M63V18X31.5_F	1000	63	18X31.5	NRZJ102M63V16X25F	Smaller Dia., Same LS
NRSG122M63V16X40_F	1200	63	16X40	NRSH122M63V16x31.5_F	
NRSG122M63V18X35.5_F	1200	63	18X35.5	NRSH122M63V18x25_F	
NRSG152M63V18X40_F	1500	63	18X40	NRSH152M63V18x31.5_F	
NRSG6R8M100V5X11_F	6.8	100	5X11	N/A	
NRSG150M100V6.3X11_F	15	100	6.3X11	N/A	
NRSG270M100V8x11.5_F	27	100	8x11.5	N/A	
NRSG270M100V8X12.5_F	27	100	8X12.5	N/A	
NRSG390M100V8X16_F	39	100	8X16	N/A	
NRSG470M100V10X12.5_F	47	100	10X12.5	NRB-XZ470M160V10X16F	Higher Profile & Voltage
NRSG560M100V8X20_F	56	100	8X20	N/A	
NRSG680M100V10X16_F	68	100	10X16	NRZJ820M100V10X16F	
NRSG820M100V10X20_F	82	100	10X20	NRSH820M100V10x16F	
NRSG820M100V12.5X16_F	82	100	12.5X16	NRB-XM820M160V12.5X20F	Higher Profile & Voltage
NRSG101M100V10X23_F	100	100	10X23	NRSH101M100V10x20_F	
NRSG121M100V12.5X20_F	120	100	12.5X20	NRZJ121M100V10X20_F	Smaller Dia., Same LS
NRSG181M100V12.5X25_F	180	100	12.5X25	NRZJ181M100V12.5X20_F	
NRSG221M100V12.5X30_F	220	100	12.5X30	NRSH221M100V12.5x25_F	
NRSG221M100V16X20_F	220	100	16X20	NRSH271M100V16x20_F	
NRSG271M100V12.5X35_F	270	100	12.5X35	NRSH271M100V12.5x30_F	
NRSG271M100V16X25_F	270	100	16X25	NRSH271M100V16x20_F	
NRSG271M100V18X20_F	270	100	18X20	NRSH271M100V16x20_F	Smaller Dia., Same LS
NRSG331M100V12.5X40_F	330	100	12.5X40	NRSH331M100V12.5x35_F	
NRSG391M100V16X31.5_F	390	100	16X31.5	NRSH391M100V16x25_F	
NRSG391M100V18X25_F	390	100	18X25	NRSH391M100V18x20_F	
NRSG471M100V16X35.5_F	470	100	16X35.5	NRSH471M100V16x31.5_F	
NRSG471M100V18X31.5_F	470	100	18X31.5	NRSH471M100V18x25_F	
NRSG561M100V16X40_F	560	100	16X40	NRSH561M100V16x35.5_F	
NRSG561M100V18X35.5_F	560	100	18X35.5	NRZJ561M100V18X31.5_F	
NRSG681M100V18X40_F	680	100	18X40	NRSH681M100V18x35.5_F	

Prepared by: Technical Product Marketing Group / tpmg@niccomp.com

➔ Follow NIC PCN alerts to get email notifications of EOL and PCN announcements at www.niccomp.com/pcn

Use our Quickbuilder tool to find possible alternatives for the discontinued parts:

http://www.niccomp.com/QuickBUILDER/qb_capacitor.php

Miniature Aluminum Electrolytic Capacitors

NRSG Series

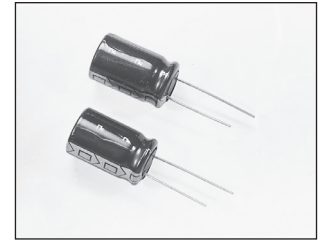
ULTRA LOW IMPEDANCE, RADIAL LEADS, POLARIZED, ALUMINUM ELECTROLYTIC

FEATURES

- VERY LOW IMPEDANCE
- LONG LIFE AT 105°C (1000 ~ 5000 hrs.)
- HIGH STABILITY AT LOW TEMPERATURE
- IDEALLY FOR SWITCHING POWER SUPPLIES & CONVERTERS

**RoHS
Compliant**
includes all homogeneous materials

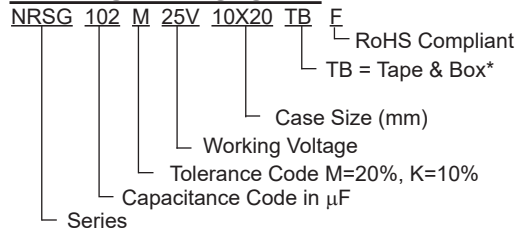
*See Part Number System for Details



CHARACTERISTICS

Rated Voltage Range	6.3 ~ 100Vdc									
Capacitance Range	5.6 ~ 6,800 μ F									
Operating Temperature Range	-40°C ~ +105°C									
Capacitance Tolerance	\pm 20% (M)									
Maximum Leakage Current After 2 Minutes at 20°C	0.01CV or 3 μ A whichever is greater									
Max. Tan δ at 120Hz/20°C	W.V. (Vdc)	6.3	10	16	25	35	50	63	100	
	S.V. (Vdc)	8	13	20	32	44	63	79	125	
	C \leq 1,000 μ F	0.22	0.19	0.16	0.14	0.12	0.10	0.09	0.08	
	C = 1,200 μ F	0.22	0.19	0.16	-	0.12	-	-	-	
	C = 1,500 μ F	0.22	0.19	0.16	0.14	0.12	-	-	-	
	C = 1,800 μ F	-	-	-	0.14	0.12	-	-	-	
	C = 2,200 μ F	0.24	0.21	0.18	0.16	-	-	-	-	
	C = 2,700 μ F	-	-	0.18	0.16	-	-	-	-	
	C = 3,300 μ F	0.26	0.23	0.20	-	-	-	-	-	
	C = 3,900 μ F	0.26	0.23	0.20	-	-	-	-	-	
	C = 4,700 μ F	0.28	0.25	-	-	-	-	-	-	
	C = 5,600 μ F	0.30	0.27	-	-	-	-	-	-	
C = 6,800 μ F	0.32	-	-	-	-	-	-	-		
Low Temperature Stability Impedance Ratio @ 120Hz	Z-25°C/Z+20°C	2								
	Z-40°C/Z+20°C	3								
Load Life Test at Rated W.V. & 105°C 1,000 Hrs. L = 7mm 2,000 Hrs. 5 ~ 6.3mm Dia. 3,000 Hrs. 8mm Dia. 4,000 Hrs. 10mm Dia. 5,000 Hrs. 12.5 ~ 18mm Dia.	Capacitance Change	Within \pm 25% of initial measured value								
	Tan δ	Less than 200% of specified value								
	Leakage Current	Less than specified value								

PART NUMBER SYSTEM



*see tape specification for details

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



STANDARD PRODUCT AND CASE SIZE TABLE DΦ x L (mm)

Cap (μF)	Code	Working Voltage (Vdc)							
		6.3	10	16	25	35	50	63	100
5.6	5R6	-	-	-	-	-	4x7	-	-
6.8	6R8	-	-	-	-	-	-	-	5x11
10	100	-	-	-	-	4x7	5x7	-	-
15	150	-	-	-	4x7	-	-	5x11	6.3x11
18	180	-	-	4x7	-	5x7	-	-	-
22	220	-	-	-	-	-	5x11	-	-
							6.3x7		
27	270	-	4x7	-	5x7	-	-	-	8x11.5
33	330	-	-	5x7	-	5x11	8x7	6.3x11	-
39	390	4x7	-	-	-	6.3x7	-	-	8x16
47	470	-	-	-	5x11	-	6.3x11	-	10x12.5
56	560	-	5x7	5x11	6.3x7	6.3x11	6.3x11	8x11.5	8x20
						8x7			
68	680	5x7	-	6.3x7	-	-	-	-	10x16
82	820	-	-	-	-	-	-	8x16	10x20
								10x12.5	12.5x16
100	101	-	5x11	-	6.3x11	-	8x12.5	-	10x23
					8x7				
120	121	-	6.3x7	6.3x11	8x7	-	-	8x16	12.5x20
								8x20	10x16
150	151	5x11	-	-	-	-	8x12.5	10x12.5	-
		6.3x7							
180	181	-	8x7	-	-	-	8x20	10x20	12.5x25
								12.5x16	
220	221	8x7	6.3x11	-	8x11.5	8x16	10x16	10x23	12.5x30
						10x12.5			16x20
270	271	-	-	-	-	8x20	10x20	12.5x20	12.5x35
								16x25	
								18x20	
330	331	6.3x11	-	8x11.5	8x16	10x16	10x23	12.5x25	12.5x40
					10x12.5				
390	391	-	-	-	-	-	-	-	16x31.5
									18x25
470	471	-	8x11.5	8x16	8x20	10x20	12.5x20	12.5x30	16x35.5
				10x12.5				10x16	16x20
560	561	8x11.5	-	-	-	10x23	12.5x25	12.5x35	16x40
								16x25	18x35.5
680	681	-	8x16	8x20	10x20	12.5x20	12.5x30	12.5x40	18x40
			10x12.5	10x16				18x20	
820	821	8x16	-	-	10x20	-	12.5x35	16x31.5	-
					10x23			16x21	
1000	102	10x12.5	8x20	10x20	12.5x20	12.5x25	16x25	16x35.5	-
		10x16						18x31.5	
1200	122	8x20	10x20	10x20	-	12.5x30	-	16x40	-
		10x16		10x23				16x21	
1500	152	10x20	10x20	12.5x20	12.5x25	12.5x35	-	18x40	-
		10x23							
1800	182	-	-	-	12.5x30	16x25	-	-	-
					16x21				
2200	222	10x20	12.5x20	12.5x25	12.5x35	-	-	-	-
		10x23							
2700	272	-	-	12.5x30	16x25	-	-	-	-
				16x21					
3300	332	12.5x20	12.5x25	12.5x35	-	-	-	-	-
3900	392	12.5x25	12.5x30	16x25	-	-	-	-	-
			16x21						
4700	472	12.5x30	12.5x35	-	-	-	-	-	-
5600	562	12.5x35	16x25	-	-	-	-	-	-
		16x21							
6800	682	16x25	-	-	-	-	-	-	-

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

Part Number	Cap (μ F)	W.V (Vdc)	Max. Tan δ	Max. Z (m Ω) 100KHz & 20°C	Max. Ripple Current (mA) 100KHz & 105°C	Load Life Hours @ +105°C
NRSG390M6.3V4X7F	39	6.3	0.22	850	130	1000
NRSG680M6.3V5X7F	68		0.22	430	210	1000
NRSG151M6.3V5x11F	150		0.22	300	250	2000
NRSG151M6.3V6.3X7F	150		0.22	230	300	1000
NRSG221M6.3V8X7F	220		0.22	150	380	1000
NRSG331M6.3V6.3x11F	330		0.22	130	405	2000
NRSG561M6.3V8x11.5F	560		0.22	72	760	3000
NRSG821M6.3V8x16F	820		0.22	56	995	3000
NRSG102M6.3V10x12.5F	1000		0.22	53	1030	4000
NRSG122M6.3V8x20F	1200		0.22	41	1250	3000
NRSG122M6.3V10x16F			0.22	38	1430	4000
NRSG152M6.3V10x20F	1500		0.22	23	1820	4000
NRSG222M6.3V10x20F	2200		0.24	23	1820	4000
NRSG222M6.3V10x23F			0.24	22	2150	4000
NRSG332M6.3V12.5x20F	3300		0.26	21	2360	5000
NRSG392M6.3V12.5x25F	3900		0.26	18	2770	5000
NRSG472M6.3V12.5x30F	4700		0.28	16	3290	5000
NRSG562M6.3V12.5X35F	5600		0.30	15	3400	5000
NRSG562M6.3V16x21F			0.30	18	3140	5000
NRSG682M6.3V16x25F	6800		0.32	16	3460	5000
NRSG270M10V4X7F	27	10	0.19	890	130	1000
NRSG560M10V5X7F	56		0.19	440	210	1000
NRSG101M10V5x11F	100		0.19	300	250	2000
NRSG121M10V6.3X7F	120		0.19	230	300	1000
NRSG181M10V8X7F	180		0.19	150	380	1000
NRSG221M10V6.3x11F	220		0.19	130	405	2000
NRSG471M10V8x11.5F	470		0.19	72	760	3000
NRSG681M10V8x16F	680		0.19	56	995	3000
NRSG681M10V10x12.5F			0.19	53	1030	4000
NRSG102M10V8x20F	1000		0.19	41	1250	3000
NRSG102M10V10x16F			0.19	38	1430	4000
NRSG122M10V10x20F	1200		0.19	23	1820	4000
NRSG152M10V10x20F	1500		0.19	23	1820	4000
NRSG152M10V10x23F			0.19	22	2150	4000
NRSG222M10V12.5x20F	2200		0.21	21	2360	5000
NRSG332M10V12.5x25F	3300		0.23	18	2770	5000
NRSG392M10V12.5x30F	3900		0.23	16	3290	5000
NRSG392M10V16x21F			0.23	18	3140	5000
NRSG472M10V12.5X35F	4700		0.25	15	3400	5000
NRSG562M10V16x25F	5600		0.27	16	3460	5000
NRSG180M16V4X7F	18	16	0.16	920	130	1000
NRSG330M16V5X7F	33		0.16	450	210	1000
NRSG560M16V5x11F	56		0.16	300	250	2000
NRSG680M16V6.3X7F	68		0.16	240	300	1000
NRSG121M16V6.3x11F	120		0.16	130	405	2000
NRSG121M16V8X7F	120		0.16	150	380	1000
NRSG331M16V8x11.5F	330		0.16	72	760	3000
NRSG471M16V8x16F	470		0.16	56	995	3000
NRSG471M16V10x12.5F			0.16	53	1030	4000
NRSG681M16V8x20F	680		0.16	41	1250	3000
NRSG681M16V10x16F			0.16	38	1430	4000
NRSG102M16V10x20F	1000		0.16	23	1820	4000
NRSG122M16V10x20F	1200		0.16	23	1820	4000
NRSG122M16V10x23F			0.16	22	2150	4000
NRSG152M16V12.5x20F	1500		0.16	21	2360	5000
NRSG222M16V12.5x25F	2200		0.18	18	2770	5000
NRSG272M16V12.5x30F	2700		0.18	16	3290	5000
NRSG272M16V16x21F			0.18	18	3140	5000
NRSG332M16V12.5X35F	3300		0.20	15	3400	5000
NRSG392M16V16x25F	3900		0.20	16	3460	5000

Denotes New Value



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

Part Number	Cap (μF)	W.V (Vdc)	Max. Tanδ	Max. Z (mΩ) 100KHz & 20°C	Max. Ripple Current (mA) 100KHz & 105°C	Load Life Hours @ +105°C	
NRSG150M25V4X7F	15	25	0.14	940	130	1000	
NRSG270M25V5X7F	27		0.14	460	210	1000	
NRSG470M25V5x11F	47		0.14	300	250	2000	
NRSG560M25V6.3X7F	56		0.14	240	300	1000	
NRSG101M25V6.3x11F	100		0.14	130	405	2000	
NRSG101M25V8X7F	100		0.14	150	380	1000	
NRSG221M25V8x11.5F	220		0.14	72	760	3000	
NRSG331M25V8x16F	330		0.14	56	995	3000	
NRSG331M25V10x12.5F			0.14	53	1030	4000	
NRSG471M25V8x20F	470		0.14	41	1250	3000	
NRSG471M25V10x16F			0.14	38	1430	4000	
NRSG681M25V10x20F	680		0.14	23	1820	4000	
NRSG821M25V10x20F	820		0.14	23	1820	4000	
NRSG821M25V10x23F			0.14	22	2150	4000	
NRSG102M25V12.5x20F	1000		0.14	21	2360	5000	
NRSG152M25V12.5x25F	1500		0.14	18	2770	5000	
NRSG182M25V12.5x30F	1800		0.14	16	3290	5000	
NRSG182M25V16x21F			0.14	18	3140	5000	
NRSG222M25V12.5X35F	2200		0.16	15	3400	5000	
NRSG272M25V16x25F	2700		0.16	16	3460	5000	
NRSG100M35V4X7F	10		35	0.12	960	130	1000
NRSG180M35V5X7F	18			0.12	470	210	1000
NRSG330M35V5x11F	33			0.12	300	250	2000
NRSG390M35V6.3X7F	39			0.12	250	300	1000
NRSG560M35V6.3x11F	56			0.12	130	405	2000
NRSG560M35V8X7F	56	0.12		160	380	1000	
NRSG151M35V8x12.5F	150	0.12		72	760	3000	
NRSG221M35V8x16F	220	0.12		56	995	3000	
NRSG221M35V10x12.5F		0.12		53	1030	4000	
NRSG271M35V8x20F	270	0.12		41	1250	3000	
NRSG331M35V10x16F	330	0.12		38	1430	4000	
NRSG471M35V10x20F	470	0.12		23	1820	4000	
NRSG561M35V10x23F	560	0.12		22	2150	4000	
NRSG681M35V12.5x20F	680	0.12		21	2360	5000	
NRSG102M35V12.5x25F	1000	0.12		18	2770	5000	
NRSG122M35V12.5x30F	1200	0.12		16	3290	5000	
NRSG122M35V16x21F		0.12		18	3140	5000	
NRSG152M35V12.5X35F	1500	0.12		15	3400	5000	
NRSG182M35V16x25F	1800	0.12		16	3460	5000	
NRSG5R6M50V4X7F	5.6	50		0.10	1000	130	1000
NRSG100M50V5X7F	10			0.10	500	210	1000
NRSG220M50V5x11F	22			0.10	340	238	2000
NRSG220M50V6.3X7F	22			0.10	260	300	1000
NRSG330M50V8X7F	33			0.10	170	380	1000
NRSG470M50V6.3x11F	47			0.10	140	385	2000
NRSG560M50V6.3X11F	56		0.10	140	385	2000	
NRSG101M50V8x12.5F	100		0.10	74	724	3000	
NRSG121M50V8x16F	120		0.10	61	950	3000	
NRSG151M50V10x12.5F	150		0.10	61	979	4000	
NRSG181M50V8x20F	180		0.10	46	1190	3000	
NRSG221M50V10x16F	220		0.10	42	1370	4000	
NRSG271M50V10x20F	270		0.10	30	1580	4000	
NRSG331M50V10x23F	330		0.10	28	1870	4000	
NRSG471M50V12.5x20F	470		0.10	27	2050	5000	
NRSG561M50V12.5x25F	560		0.10	28	2410	5000	
NRSG681M50V12.5x30F	680		0.10	21	2360	5000	
NRSG821M50V12.5X35F	820		0.10	19	2960	5000	
NRSG821M50V16x21F	820		0.10	23	2730	5000	
NRSG102M50V16x25F	1000		0.10	21	3010	5000	

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

Part Number	Cap (μ F)	W.V (Vdc)	Max. Tan δ	Max. Z (m Ω) 100KHz & 20°C	Max. Ripple Current (mA) 100KHz & 105°C	Load Life Hours @ +105°C	
NRSG150M63V5x11F	15	63	0.09	880	165	2000	
NRSG330M63V6.3x11F	33		0.09	350	265	2000	
NRSG560M63V8x11.5F	56		0.09	220	500	3000	
NRSG820M63V8x16F	82		0.09	160	665	3000	
NRSG820M63V10x12.5F			0.09	150	685	4000	
NRSG121M63V8x20F	120		0.09	120	820	3000	
NRSG121M63V10x16F			0.09	110	945	4000	
NRSG181M63V10x20F	180		0.09	80	1100	4000	
NRSG181M63V12.5x16F			0.09	82	1135	5000	
NRSG221M63V10x23F	220		0.09	73	1300	4000	
NRSG271M63V12.5x20F	270		0.09	60	1495	5000	
NRSG331M63V12.5x25F	330		0.09	43	1850	5000	
NRSG471M63V12.5x30F	470		0.09	39	2250	5000	
NRSG471M63V16x20F			0.09	45	1990	5000	
NRSG561M63V12.5x35F	560		0.09	33	2450	5000	
NRSG561M63V16x25F			0.09	32	2550	5000	
NRSG681M63V12.5x40F	680		0.09	29	2780	5000	
NRSG681M63V18x20F			0.09	38	2450	5000	
NRSG821M63V16x31.5F	820		0.09	26	2810	5000	
NRSG821M63V18x25F			0.09	31	2780	5000	
NRSG102M63V16x35.5F	1000		0.09	21	2835	5000	
NRSG102M63V18x31.5F			0.09	25	3270	5000	
NRSG122M63V16x40F	1200		0.09	19	3340	5000	
NRSG122M63V18x35.5F			0.09	20	3310	5000	
NRSG152M63V18x40F			1500	0.09	18	3420	5000
NRSG6R8M100V5x11F	6.8		100	0.08	1400	125	2000
NRSG150M100V6.3x11F	15			0.08	570	205	2000
NRSG270M100V8x11.5F	27			0.08	360	355	3000
NRSG390M100V8x16F	39			0.08	250	450	3000
NRSG470M100V10x12.5F	47			0.08	240	450	4000
NRSG560M100V8x20F	56	0.08		190	565	3000	
NRSG680M100V10x16F	68	0.08		180	580	4000	
NRSG820M100V10x20F	82	0.08		130	750	4000	
NRSG820M100V12.5x16F		0.08		130	735	5000	
NRSG101M100V10x23F	100	0.08		120	880	4000	
NRSG121M100V12.5x20F	120	0.08		94	1045	5000	
NRSG181M100V12.5x25F	180	0.08		71	1195	5000	
NRSG221M100V12.5x30F	220	0.08		63	1410	5000	
NRSG221M100V16x20F		0.08		71	1295	5000	
NRSG271M100V12.5x35F	270	0.08		52	1560	5000	
NRSG271M100V16x25F		0.08		53	1600	5000	
NRSG271M100V18x20F		0.08		69	1470	5000	
NRSG331M100V12.5x40F	330	0.08		46	1700	5000	
NRSG391M100V16x31.5F	390	0.08		41	1750	5000	
NRSG391M100V18x25F		0.08		49	1620	5000	
NRSG471M100V16x35.5F	470	0.08		33	1890	5000	
NRSG471M100V18x31.5F		0.08		39	1775	5000	
NRSG561M100V16x40F	560	0.08		30	2080	5000	
NRSG561M100V18x35.5F		0.08		31	2060	5000	
NRSG681M100V18x40F		680		0.08	28	2570	5000

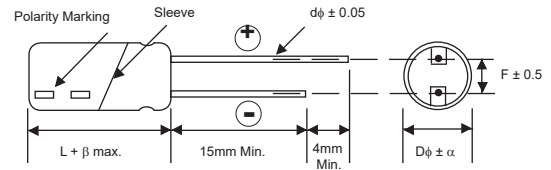
RIPPLE CURRENT FREQUENCY CORRECTION FACTOR

Frequency (Hz)	120	1K	10K	\leq 100K
5.6 ~ 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
2200 ~ 82000 μ F	0.70	0.85	0.98	1.00



LEAD SPACING AND DIAMETER (mm)

Case Dia. (D ϕ)	4	5	6.3	8	10	12.5	16	18
L=7 Lead Dia. (D ϕ)	0.45	0.45	0.45	0.45	-	-	-	-
Lead Dia. (D ϕ)	-	0.5	0.5	0.6	0.6	0.6	0.8	0.8
Lead Spacing (F)	1.5	2.0	2.5	3.5	5.0	5.0	7.5	7.5
Dim. α	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Dim. β	L=7: 1.0, L < 20mm: 1.5mm, L > 20mm: 2.0mm							



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