

# RF Series

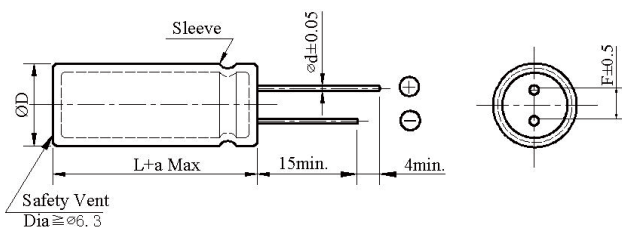
- Long life, better performance, cost effective
- Load life 5,000~7,000 hours at 105°C
- RoHS Compliant



## ◆ SPECIFICATIONS

Item	Performance Characteristics																					
Category Temperature Range	-40 ~ +105°C																					
Working Voltage Range	160 ~ 450Vdc																					
Capacitance Range	1 ~ 150μF																					
Capacitance Tolerance	±20% (at 20°C and 120Hz)																					
Dissipation Factor (tanδ) (at 20°C, 120Hz)	<table border="1"> <tr> <td>Rated Voltage (V)</td> <td>160</td> <td>200</td> <td>250</td> <td>350</td> <td>400</td> <td>450</td> </tr> <tr> <td>tanδ(Max)</td> <td>0.15</td> <td>0.15</td> <td>0.15</td> <td>0.20</td> <td>0.20</td> <td>0.20</td> </tr> </table>	Rated Voltage (V)	160	200	250	350	400	450	tanδ(Max)	0.15	0.15	0.15	0.20	0.20	0.20							
	Rated Voltage (V)	160	200	250	350	400	450															
tanδ(Max)	0.15	0.15	0.15	0.20	0.20	0.20																
Leakage Current	<table border="1"> <tr> <td>160~400Vdc</td> <td>450Vdc</td> </tr> <tr> <td><math>I \leq 0.02CV + 10\mu A</math> (2minutes)</td> <td><math>I \leq 0.03CV + 10\mu A</math> (2minutes)</td> </tr> </table>	160~400Vdc	450Vdc	$I \leq 0.02CV + 10\mu A$ (2minutes)	$I \leq 0.03CV + 10\mu A$ (2minutes)																	
	160~400Vdc	450Vdc																				
$I \leq 0.02CV + 10\mu A$ (2minutes)	$I \leq 0.03CV + 10\mu A$ (2minutes)																					
Low Temperature Characteristics Impedance Ratio(MAX)	I: Leakage current (μA) C: Rated capacitance (μF) V: Rated voltage (V)																					
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	Rated Voltage (V)	160	200	250	350	400	450															
Z(-25°C)/Z(+20°C)	3	3	3	5	5	6																
Z(-40°C)/Z(+20°C)	6	6	6	6	6	9																
(at 120Hz)																						
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 5,000 to 7,000 hours at 105°C.																					
	<table border="1"> <tr> <td>Capacitance change</td> <td>≒ ±20% of the initial value</td> </tr> <tr> <td>Dissipation factor(tanδ)</td> <td>≒ 200% of the specified value</td> </tr> <tr> <td>Leakage current</td> <td>≒ specified value</td> </tr> </table>	Capacitance change	≒ ±20% of the initial value	Dissipation factor(tanδ)	≒ 200% of the specified value	Leakage current	≒ specified value															
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Leakage current	≒ specified value																					
Shelf Life	The following requirements shall be satisfied when the capacitor are restored to 20°C after the rated voltage applied for 1,000 hours at 105°C without voltage applied.																					
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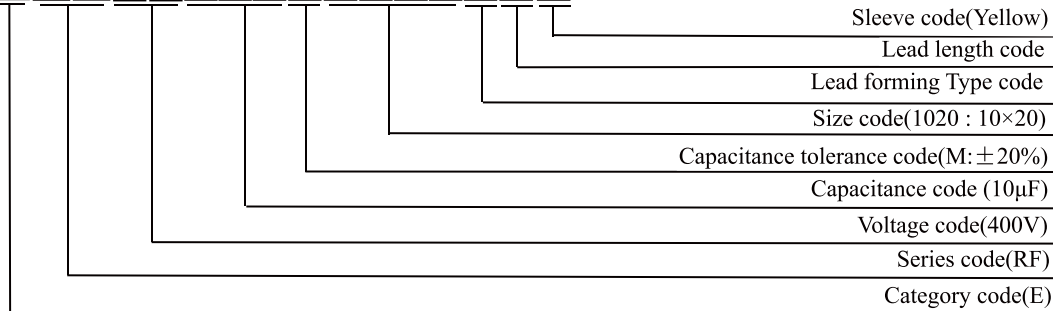
## ◆ DIMENSIONS (mm)



ΦD	5	6.3	8	10	12.5	16	18
ΦD	ΦD +0.5 Max						
Φd	0.5	0.5	0.5/0.6	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
a	L+2.0 Max						

## ◆ PART NUMBER SYSTEM( Example : 400V 10μF )

E R F 2 G 1 0 0 M 1 0 2 0 0 0 Y



## RF Series

◆ Case size & Permissible rated ripple current: (mArms) at 105°C / 100KHz

Vdc μF	160		200		250	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
1.0	6.3×11	40	6.3×11	42	6.3×11	46
1.5	6.3×11	50	6.3×11	54	6.3×11	58
1.8	6.3×11	56	6.3×11	60	6.3×11	63
2.2	6.3×11	60	6.3×11	68	6.3×11	75
2.8	6.3×11	68	6.3×11	71	6.3×11	78
3.3	6.3×11	72	6.3×11	80	6.3×11	83
4.7	6.3×11	75	6.3×11	90	6.3×11	91
5.6	6.3×11	79	8×12	98	8×12	105
6.8	8×12	96	8×12	110	8×12	109
8.2	8×12	110	8×12	115	8×12	118
10	8×12	206	8×12	210	8×16	215
15	8×12	230	8×16	250	8×20	310
22	8×16	340	8×20	400	10×16	405
33	10×16	420	10×20	450	10×20	530
47	10×16	460	12.5×16	610	12.5×20	625
68	12.5×16	570	12.5×20	635	12.5×25	720
100	12.5×20	680	12.5×25	730	16×25	880
150	16×20	760	16×25	855	16×30	1030
Vdc μF	350		400		450	
	ΦD × L	RC	ΦD × L	RC	ΦD × L	RC
1.0	6.3×11	58	6.3×11	72	8×12	76
1.5	6.3×11	72	6.3×11	78	8×12	80
1.8	6.3×11	80	6.3×11	85	8×12	90
2.2	6.3×11	90	6.3×11	95	8×12	103
2.8	8×12	106	8×12	107	8×12	115
3.3	8×12	110	8×12	112	8×12	128
4.7	8×12	115	8×12	118	8×16	132
5.6	8×12	130	8×16	145	8×20	155
6.8	8×16	160	8×20	170	10×16	180
8.2	8×20	189	10×16	200	10×20	220
10	10×16	230	10×20	260	12.5×16	280
15	10×20	300	10×20	320	12.5×20	350
22	12.5×16	390	12.5×20	420	12.5×25	450
33	12.5×20	515	12.5×25	540	16×25	560
47	16×20	650	16×25	680	16×30	700
68	16×25	725	18×25	800	18×30	820
82	18×25	910	18×30	950	18×35	970
100	18×30	980	18×35	1000	18×40	1050

### ◆ RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Vdc	Frequency (Hz)				
	50	120	1K	10K	100K
160 ~ 450	0.45	0.50	0.80	0.90	1.00

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[NEV47M16BA](#) [NEV47M50CB-BULK](#) [NEVH1.0M350AB](#)