

RJ series

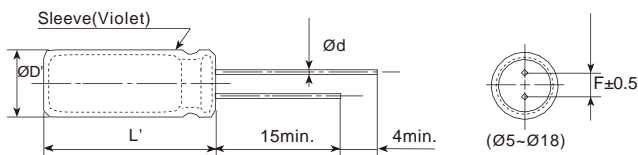
- Miniaturized
- Low impedance, high ripple current, long life
- Endurance: +105°C 8,000 ~12,000 hours
- RoHS Compliant



SPECIFICATIONS

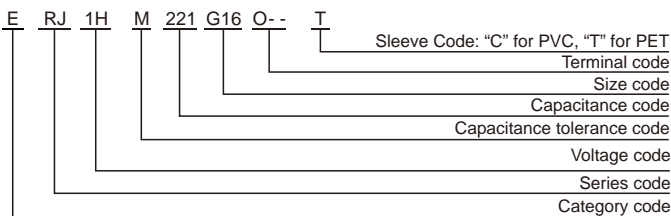
Items	Characteristics	
Category Temperature Range	-40~+105°C	
Rated Voltage Range	10~120 V _{dc}	
Capacitance Tolerance	±20%(M) (at 20°C, 120Hz)	
Leakage Current	I ≤ 0.01CV or 3μA, whichever is greater. Where, I: Max. leakage current (μA), C: Nominal capacitance (μF), V: Rated voltage (V) (at 20°C after 2 minutes)	
Dissipation Factor (tan δ)	Rated Voltage (V _{dc})	10 16 25 35 50 63 80 100 120
	tan δ (max.)	0.19 0.16 0.14 0.12 0.10 0.09 0.09 0.08 0.12
	When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase. (at 20°C, 120Hz)	
Low Temperature Characteristics (Max. Impedance Ratio)	Rated Voltage (V _{dc})	10 16 25 35 50 63 80 100 120
	Z(-25°C)/Z(+20°C)	2 2 3
	Z(-40°C)/Z(+20°C)	4 3 6 (at 120Hz)
Endurance	The specifications listed below shall be met when the capacitors are restored to 20°C after DC voltage plus rated ripple current is applied for a specified period of time at 105 °C, the peak voltage shall not exceed the rated voltage.	
	Capacitance Change	±25% of the initial value (10V: ±30%)
	D.F. (tan δ)	200% of the initial specified value
	Leakage Current	The initial specified value
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after leaving them under no load at 105°C for 1,000 hours.	
	Capacitance Change	±25% of the initial value (10V: ±30%)
	D.F. (tan δ)	200% of the initial specified value
	Leakage Current	200% of the initial specified value

DIMENSIONS[mm]



ØD	5	6.3	8	10	12.5	16	18
Ød	0.5	0.5	0.5	0.6	0.6	0.8	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5	7.5
ØD'	ØD+0.5max.						
L'	L+2max.						

PART NUMBERING SYSTEM



RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Cap.(μF) \ Freq.(Hz)	120	1k	10k	100k
Cap.<47	0.42	0.70	0.90	1.00
47 Cap.<330	0.50	0.73	0.92	1.00
330 Cap.<820	0.55	0.77	0.94	1.00
820 Cap.<2200	0.60	0.80	0.96	1.00
Cap. 2200	0.70	0.85	0.98	1.00

RJ series

■ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Size DxDL(mm)	tan	Impedance (max/20°C, 100kHz)	Rated ripple current (mA _{RMS} /105°C, 100kHz)	Part Number
10(1A)	150	5x11	0.19	0.4	450	ERJ1AM151D11OT
		6.3x9	0.19	0.52	380	ERJ1AM151E09OT
	330	6.3x11	0.19	0.17	700	ERJ1AM331E11OT
		8x9	0.19	0.22	590	ERJ1AM332F09OT
	560	8x12	0.19	0.075	1200	ERJ1AM561F12OT
		10x9	0.19	0.097	1020	ERJ1AM561G09OT
	680	8x16	0.19	0.059	1600	ERJ1AM681F16OT
	820	10x12.5	0.19	0.053	1700	ERJ1AM821G1BOT
	1000	8x20	0.19	0.041	1960	ERJ1AM102F20OT
	1200	10x16	0.19	0.038	2000	ERJ1AM122G16OT
	1800	10x20	0.19	0.028	2500	ERJ1AM182G20OT
	2200	10x25	0.21	0.024	2900	ERJ1AM222G25OT
	2700	12.5x20	0.21	0.025	2600	ERJ1AM272W20OT
	3300	12.5x25	0.23	0.019	3200	ERJ1AM332W25OT
	4700	12.5x30	0.25	0.018	3660	ERJ1AM472W30OT
		16x20	0.25	0.021	3330	ERJ1AM472L20OT
12.5x35		0.27	0.016	4120	ERJ1AM562W35OT	
16x25		0.27	0.017	3810	ERJ1AM562L25OT	
16(1C)	120	5x11	0.16	0.4	450	ERJ1CM121D11OT
		6.3x9	0.16	0.52	380	ERJ1CM121E09OT
	270	6.3x11	0.16	0.17	700	ERJ1CM271E11OT
		8x9	0.16	0.22	590	ERJ1CM271F09OT
	470	8x12	0.16	0.075	1200	ERJ1CM471F12OT
		10x9	0.16	0.097	1020	ERJ1CM471G09OT
	560	8x16	0.16	0.059	1600	ERJ1CM561F16OT
	680	10x12.5	0.16	0.053	1700	ERJ1CM681G1BOT
	820	8x20	0.16	0.041	1960	ERJ1CM821F20OT
	1000	10x16	0.16	0.038	2000	ERJ1CM102G16OT
	1500	10x20	0.16	0.028	2500	ERJ1CM152G20OT
	1800	10x25	0.16	0.024	2900	ERJ1CM182G25OT
	2200	12.5x20	0.18	0.025	2600	ERJ1CM222W20OT
	2700	12.5x25	0.18	0.019	3200	ERJ1CM272W25OT
	3300	12.5x30	0.20	0.018	3660	ERJ1CM332W30OT
		16x20	0.20	0.021	3330	ERJ1CM332L20OT
12.5x35		0.20	0.016	4120	ERJ1CM392W35OT	
16x25		0.22	0.017	3810	ERJ1CM472L25OT	
25(1E)	68	5x11	0.14	0.4	450	ERJ1EM680D11OT
		6.3x9	0.14	0.52	380	ERJ1EM680E09OT
	150	6.3x11	0.14	0.17	700	ERJ1EM151E11OT
		8x9	0.14	0.22	590	ERJ1EM151F09OT
	330	8x12	0.14	0.075	1200	ERJ1EM331F12OT
		10x9	0.14	0.097	1020	ERJ1EM331G09OT
	390	8x16	0.14	0.059	1600	ERJ1EM391F16OT
	470	10x12.5	0.14	0.053	1700	ERJ1EM471G1BOT
	560	8x20	0.14	0.041	1960	ERJ1EM561F20OT
	680	10x16	0.14	0.038	2000	ERJ1EM681G16OT
	1000	10x20	0.14	0.028	2500	ERJ1EM102G20OT
	1200	10x25	0.14	0.024	2900	ERJ1EM122G25OT
	1500	12.5x20	0.14	0.025	2600	ERJ1EM152W20OT
	1800	12.5x25	0.14	0.019	3200	ERJ1EM182W25OT
	2200	12.5x30	0.16	0.018	3660	ERJ1EM222W30OT
		16x20	0.16	0.021	3330	ERJ1EM222L20OT
12.5x35		0.16	0.016	4120	ERJ1EM272W35OT	
16x25		0.18	0.017	3810	ERJ1EM332L25OT	
35(1V)	47	5x11	0.12	0.4	450	ERJ1VM470D11OT
		6.3x9	0.12	0.52	380	ERJ1VM470E09OT
	100	6.3x11	0.12	0.17	700	ERJ1VM101E11OT
		8x9	0.12	0.22	590	ERJ1VM101F09OT
	180	8x12	0.12	0.075	1200	ERJ1VM181F12OT
		10x9	0.12	0.097	1020	ERJ1VM181G09OT
	220	8x16	0.12	0.059	1600	ERJ1VM221F16OT
	270	10x12.5	0.12	0.053	1700	ERJ1VM271G1BOT
	330	8x20	0.12	0.041	1960	ERJ1VM331F20OT
	390	10x16	0.12	0.038	2000	ERJ1VM391G16OT
	560	10x20	0.12	0.028	2500	ERJ1VM561G20OT
	680	10x25	0.12	0.024	2900	ERJ1VM681G25OT
	820	12.5x20	0.12	0.025	2600	ERJ1VM821W20OT
	1200	12.5x25	0.12	0.019	3200	ERJ1VM122W25OT

WV (Vdc)	Cap (μF)	Size DxDL(mm)	tan	Impedance (max/20°C, 100kHz)	Rated ripple current (mA _{RMS} /105°C, 100kHz)	Part Number	
35(1V)	1500	12.5x30	0.12	0.018	3660	ERJ1VM152W30OT	
		16x20	0.12	0.021	3330	ERJ1VM152L20OT	
	1800	12.5x35	0.12	0.016	4120	ERJ1VM182W35OT	
		16x25	0.12	0.017	3810	ERJ1VM182L25OT	
50(1H)	27	5x11	0.10	0.48	310	ERJ1HM270D11OT	
		6.3x9	0.10	0.63	260	ERJ1HM270E09OT	
	56	6.3x11	0.10	0.22	500	ERJ1HM560E11OT	
		8x9	0.10	0.29	425	ERJ1HM560F09OT	
	100	8x12	0.10	0.12	950	ERJ1HM101F12OT	
		10x9	0.10	0.16	800	ERJ1HM101G09OT	
	120	8x16	0.10	0.082	1230	ERJ1HM121F16OT	
	150	10x12.5	0.10	0.073	1280	ERJ1HM151G1BOT	
	180	8x20	0.10	0.058	1580	ERJ1HM181F20OT	
	220	10x16	0.10	0.053	1650	ERJ1HM221G16OT	
	330	10x20	0.10	0.038	2060	ERJ1HM331G20OT	
	390	10x25	0.10	0.032	2420	ERJ1HM391G25OT	
	470	12.5x20	0.10	0.032	2300	ERJ1HM471W20OT	
	680	12.5x25	0.10	0.025	2800	ERJ1HM681W25OT	
		12.5x30	0.10	0.023	3370	ERJ1HM821W30OT	
		16x20	0.10	0.026	3070	ERJ1HM821L20OT	
12.5x35		0.10	0.021	3810	ERJ1HM102W35OT		
1000	16x25	0.10	0.022	3510	ERJ1HM102L25OT		
63(1J)	18	5x11	0.09	0.71	240	ERJ1JM180D11OT	
		6.3x9	0.09	0.92	200	ERJ1JM180E09OT	
	47	6.3x11	0.09	0.28	420	ERJ1JM470E11OT	
		8x9	0.09	0.36	350	ERJ1JM470F09OT	
	82	8x12	0.09	0.18	720	ERJ1JM820F12OT	
		10x9	0.09	0.24	610	ERJ1JM820G09OT	
	100	8x16	0.09	0.13	990	ERJ1JM101F16OT	
	120	10x12.5	0.09	0.11	990	ERJ1JM121G1BOT	
	150	8x20	0.09	0.096	1200	ERJ1JM151F20OT	
	180	10x16	0.09	0.076	1200	ERJ1JM181G16OT	
	270	10x20	0.09	0.056	1570	ERJ1JM271G20OT	
		12.5x16	0.09	0.072	1570	ERJ1JM271W16OT	
		10x25	0.09	0.046	1990	ERJ1JM331G25OT	
		12.5x20	0.09	0.041	1990	ERJ1JM391W20OT	
	470	12.5x25	0.09	0.031	2460	ERJ1JM471W25OT	
	560	12.5x30	0.09	0.028	2760	ERJ1JM561W30OT	
16x20		0.09	0.032	2380	ERJ1JM561L20OT		
12.5x35		0.09	0.024	3040	ERJ1JM681W35OT		
16x25		0.09	0.025	2890	ERJ1JM821L25OT		
80(1B)	12	5x11	0.09	1.2	220	ERJ1BM120D11OT	
		6.3x9	0.09	1.6	180	ERJ1BM120E09OT	
	27	6.3x11	0.09	0.46	370	ERJ1BM270E11OT	
		8x9	0.09	0.6	310	ERJ1BM270F09OT	
	47	8x12	0.09	0.29	620	ERJ1BM470F12OT	
		10x9	0.09	0.38	520	ERJ1BM470G09OT	
	56	8x16	0.09	0.2	780	ERJ1BM560F16OT	
	68	10x12.5	0.09	0.17	780	ERJ1BM680G1BOT	
	82	8x20	0.09	0.16	1040	ERJ1BM820F20OT	
	100	10x16	0.09	0.11	1040	ERJ1BM101G16OT	
	150	10x20	0.09	0.084	1430	ERJ1BM151G20OT	
		12.5x16	0.09	0.11	1430	ERJ1BM151W16OT	
		180	10x25	0.09	0.069	1620	ERJ1BM181G25OT
		220	12.5x20	0.09	0.062	1750	ERJ1BM221W20OT
	270	12.5x25	0.09	0.047	2210	ERJ1BM271W25OT	
		12.5x30	0.09	0.042	2400	ERJ1BM331W30OT	
330	16x20	0.09	0.048	1950	ERJ1BM331L20OT		
	12.5x35	0.09	0.036	2600	ERJ1BM391W35OT		
390	12.5x40	0.09	0.032	2860	ERJ1BM471W40OT		
	16x25	0.09	0.038	2430	ERJ1BM471L25OT		
	18x20	0.09	0.045	2270	ERJ1BM471M20OT		
	560	16x30	0.09	0.032	2640	ERJ1BM561L30OT	
680	16x35	0.09	0.029	2860	ERJ1BM681L35OT		
	18x25	0.09	0.036	2500	ERJ1BM681M25OT		
820	16x40	0.09	0.027	3510	ERJ1BM821L40OT		
	18x30	0.09	0.03	2860	ERJ1BM821M30OT		
	1000	18x35	0.09	0.027	3510	ERJ1BM102M35OT	
	1200	18x40	0.09	0.026	3860	ERJ1BM122M40OT	

RJ series

■ STANDARD RATINGS

WV (V _{dc})	Cap (μF)	Size DxL(mm)	tan	Impedance (max/20°C, 100kHz)	Rated ripple current (mA _{rms} /105°C, 100kHz)	Part Number
100(1K)	8.2	5x11	0.08	1.2	220	ERJ1KM8R2D11OT
		6.3x9	0.08	1.6	180	ERJ1KM8R2E09OT
	18	6.3x11	0.08	0.46	370	ERJ1KM180E11OT
		8x9	0.08	0.6	310	ERJ1KM180F09OT
	33	8x12	0.08	0.29	620	ERJ1KM330F12OT
		10x9	0.08	0.38	520	ERJ1KM330G09OT
	47	8x16	0.08	0.2	780	ERJ1KM470F16OT
	56	10x12.5	0.08	0.17	780	ERJ1KM560G1BOT
	68	8x20	0.08	0.16	1040	ERJ1KM680F20OT
	82	10x16	0.08	0.11	1040	ERJ1KM820G16OT
	100	10x20	0.08	0.084	1430	ERJ1KM101G20OT
		12.5x16	0.08	0.11	1430	ERJ1KM101W16OT
	120	10x25	0.08	0.069	1620	ERJ1KM121G25OT
	150	12.5x20	0.08	0.062	1750	ERJ1KM151W20OT
	220	12.5x25	0.08	0.047	2210	ERJ1KM221W25OT
	270	12.5x30	0.08	0.042	2400	ERJ1KM271W30OT
		16x20	0.08	0.048	1950	ERJ1KM271L20OT
	330	12.5x35	0.08	0.036	2600	ERJ1KM331W35OT
		12.5x40	0.08	0.032	2860	ERJ1KM391W40OT
	390	16x25	0.08	0.038	2430	ERJ1KM391L25OT
		18x20	0.08	0.045	2270	ERJ1KM391M20OT
	470	16x30	0.08	0.032	2640	ERJ1KM471L30OT
		18x25	0.08	0.036	2500	ERJ1KM471M25OT
	560	16x35	0.08	0.029	2860	ERJ1KM561L35OT
		18x30	0.08	0.03	2860	ERJ1KM561M30OT
	680	16x40	0.08	0.027	3510	ERJ1KM681L40OT
		18x35	0.08	0.027	3510	ERJ1KM681M35OT
	820	18x40	0.08	0.026	3860	ERJ1KM821M40OT
120(2B)	10	6.3x11	0.12	4.6	110	ERJ2BM100E11OT
	15	6.3x12	0.12	3.8	145	ERJ2BM150E12OT
	18	8x9	0.12	3.5	165	ERJ2BM180F09OT
	22	8x12	0.12	3.0	180	ERJ2BM220F12OT
	33	8x16	0.12	2.5	320	ERJ2BM330F16OT
		10x12.5	0.12	2.5	320	ERJ2BM330G1BOT
	47	8x20	0.12	2.2	385	ERJ2BM470F20OT
		10x16	0.12	2.0	400	ERJ2BM470G16OT
	56	10x16	0.12	1.9	410	ERJ2BM560G16OT
	68	10x16	0.12	1.8	420	ERJ2BM680G16OT
	82	10x20	0.12	1.6	435	ERJ2BM820G20OT
	100	10x25	0.12	1.3	540	ERJ2BM101G25OT
	120	12.5x20	0.12	1.1	750	ERJ2BM121W20OT
	150	12.5x25	0.12	0.85	810	ERJ2BM151W25OT
	220	13x30	0.12	0.65	990	ERJ2BM221K30OT
		16x20	0.12	0.65	990	ERJ2BM221L20OT
	270	16x25	0.12	0.47	1125	ERJ2BM271L25OT
		18x20	0.12	0.47	1125	ERJ2BM271M20OT
	330	16x30	0.12	0.36	1215	ERJ2BM331L30OT
		18x25	0.12	0.36	1215	ERJ2BM331M25OT
	470	16x40	0.12	0.26	1350	ERJ2BM471L40OT
		18x30	0.12	0.26	1350	ERJ2BM471M30OT