RJ series

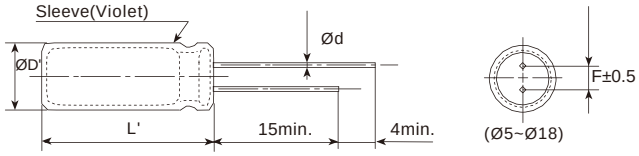
- Miniaturized
- Low impedance, high ripple current,long life
- Endurance: +105°C 8,000 ~12,000 hours
- **RoHS Compliant**



SPECIFICATIONS

Items	Characteristics
Category Temperature Range	-40~+105°C
Rated Voltage Range	10~120 Vdc
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 (tanδ)	Rated Voltage(Vdc): 10 / 16 / 25 / 35 / 50 / 63 / 80 / 100 / 120 tanδ (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(Vdc): 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. (tanδ): ≤200% of the initial specified value Leakage Current: ≤The initial specified value Case Dia.(mm) / Load life (hours): 10~120V: ØD≤6.3 — 8,000; ØD=8&10 — 10,000; ØD≥12.5 — 12,000
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. (tanδ): ≤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	0.6	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

E RJ 1H M 221 G16 O- - T

- T — Sleeve Code: “C” for PVC, “T” for PET
- G16 — Terminal code
- O- - — Size code
- 221 — Capacitance code
- M — Capacitance tolerance code
- 1H — Voltage code
- RJ — Series code
- E — Category code

RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Freq.(Hz) / Cap.(μF)	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 ΦDxL(mm)	tanδ	Impedance (Ωmax/20°C, 100kHz)	Rated ripple current (mArms/105°C, 100kHz)	Part Number
10(1A)	150	5×11	0.19	0.4	450	ERJ1AM151D11OT
		6.3×9	0.19	0.52	380	ERJ1AM151E09OT
	330	6.3×11	0.19	0.17	700	ERJ1AM331E11OT
		8×9	0.19	0.22	590	ERJ1AM332F09OT
	560	8×12	0.19	0.075	1200	ERJ1AM561F12OT
		10×9	0.19	0.097	1020	ERJ1AM561G09OT
	680	8×16	0.19	0.059	1600	ERJ1AM681F16OT
	820	10×12.5	0.19	0.053	1700	ERJ1AM821G1BOT
	1000	8×20	0.19	0.041	1960	ERJ1AM102F20OT
	1200	10×16	0.19	0.038	2000	ERJ1AM122G16OT
	1800	10×20	0.19	0.028	2500	ERJ1AM182G20OT
	2200	10×25	0.21	0.024	2900	ERJ1AM222G25OT
	2700	12.5×20	0.21	0.025	2600	ERJ1AM272W20OT
	3300	12.5×25	0.23	0.019	3200	ERJ1AM332W25OT
	4700	12.5×30	0.25	0.018	3660	ERJ1AM472W30OT
		16×20	0.25	0.021	3330	ERJ1AM472L20OT
	5600	12.5×35	0.27	0.016	4120	ERJ1AM562W35OT
		16×25	0.27	0.017	3810	ERJ1AM562L25OT
16(1C)	120	5×11	0.16	0.4	450	ERJ1CM121D11OT
		6.3×9	0.16	0.52	380	ERJ1CM121E09OT
	270	6.3×11	0.16	0.17	700	ERJ1CM271E11OT
		8×9	0.16	0.22	590	ERJ1CM271F09OT
	470	8×12	0.16	0.075	1200	ERJ1CM471F12OT
		10×9	0.16	0.097	1020	ERJ1CM471G09OT
	560	8×16	0.16	0.059	1600	ERJ1CM561F16OT
	680	10×12.5	0.16	0.053	1700	ERJ1CM681G1BOT
	820	8×20	0.16	0.041	1960	ERJ1CM821F20OT
	1000	10×16	0.16	0.038	2000	ERJ1CM102G16OT
	1500	10×20	0.16	0.028	2500	ERJ1CM152G20OT
	1800	10×25	0.16	0.024	2900	ERJ1CM182G25OT
	2200	12.5×20	0.18	0.025	2600	ERJ1CM222W20OT
	2700	12.5×25	0.18	0.019	3200	ERJ1CM272W25OT
	3300	12.5×30	0.20	0.018	3660	ERJ1CM332W30OT
		16×20	0.20	0.021	3330	ERJ1CM332L20OT
	3900	12.5×35	0.20	0.016	4120	ERJ1CM392W35OT
	4700	16×25	0.22	0.017	3810	ERJ1CM472L25OT
25(1E)	68	5×11	0.14	0.4	450	ERJ1EM680D11OT
		6.3×9	0.14	0.52	380	ERJ1EM680E09OT
	150	6.3×11	0.14	0.17	700	ERJ1EM151E11OT
		8×9	0.14	0.22	590	ERJ1EM151F09OT
	330	8×12	0.14	0.075	1200	ERJ1EM331F12OT
		10×9	0.14	0.097	1020	ERJ1EM331G09OT
	390	8×16	0.14	0.059	1600	ERJ1EM391F16OT
	470	10×12.5	0.14	0.053	1700	ERJ1EM471G1BOT
	560	8×20	0.14	0.041	1960	ERJ1EM561F20OT
	680	10×16	0.14	0.038	2000	ERJ1EM681G16OT
	1000	10×20	0.14	0.028	2500	ERJ1EM102G20OT
	1200	10×25	0.14	0.024	2900	ERJ1EM122G25OT
	1500	12.5×20	0.14	0.025	2600	ERJ1EM152W20OT
	1800	12.5×25	0.14	0.019	3200	ERJ1EM182W25OT
	2200	12.5×30	0.16	0.018	3660	ERJ1EM222W30OT
		16×20	0.16	0.021	3330	ERJ1EM222L20OT
	2700	12.5×35	0.16	0.016	4120	ERJ1EM272W35OT
	3300	16×25	0.18	0.017	3810	ERJ1EM332L25OT
35(1V)	47	5×11	0.12	0.4	450	ERJ1VM470D11OT
		6.3×9	0.12	0.52	380	ERJ1VM470E09OT
	100	6.3×11	0.12	0.17	700	ERJ1VM101E11OT
		8×9	0.12	0.22	590	ERJ1VM101F09OT
	180	8×12	0.12	0.075	1200	ERJ1VM181F12OT
		10×9	0.12	0.097	1020	ERJ1VM181G09OT
	220	8×16	0.12	0.059	1600	ERJ1VM221F16OT
	270	10×12.5	0.12	0.053	1700	ERJ1VM271G1BOT
	330	8×20	0.12	0.041	1960	ERJ1VM331F20OT
	390	10×16	0.12	0.038	2000	ERJ1VM391G16OT
	560	10×20	0.12	0.028	2500	ERJ1VM561G20OT
	680	10×25	0.12	0.024	2900	ERJ1VM681G25OT
	820	12.5×20	0.12	0.025	2600	ERJ1VM821W20OT
	1200	12.5×25	0.12	0.019	3200	ERJ1VM122W25OT

WV (Vdc)	Cap (μF)	Size ΦDxL(mm)	tanδ	Impedance (Ωmax/20°C, 100kHz)	Rated ripple current (mArms/105°C, 100kHz)	Part Number
35(1V)	1500	12.5×30	0.12	0.018	3660	ERJ1VM152W30OT
		16×20	0.12	0.021	3330	ERJ1VM152L20OT
	1800	12.5×35	0.12	0.016	4120	ERJ1VM182W35OT
		16×25	0.12	0.017	3810	ERJ1VM182L25OT
50(1H)	27	5×11	0.10	0.48	310	ERJ1HM270D11OT
		6.3×9	0.10	0.63	260	ERJ1HM270E09OT
	56	6.3×11	0.10	0.22	500	ERJ1HM560E11OT
		8×9	0.10	0.29	425	ERJ1HM560F09OT
	100	8×12	0.10	0.12	950	ERJ1HM101F12OT
		10×9	0.10	0.16	800	ERJ1HM101G09OT
	120	8×16	0.10	0.082	1230	ERJ1HM121F16OT
	150	10×12.5	0.10	0.073	1280	ERJ1HM151G1BOT
	180	8×20	0.10	0.058	1580	ERJ1HM181F20OT
	220	10×16	0.10	0.053	1650	ERJ1HM221G16OT
	330	10×20	0.10	0.038	2060	ERJ1HM331G20OT
	390	10×25	0.10	0.032	2420	ERJ1HM391G25OT
	470	12.5×20	0.10	0.032	2300	ERJ1HM471W20OT
	680	12.5×25	0.10	0.025	2800	ERJ1HM681W25OT
	820	12.5×30	0.10	0.023	3370	ERJ1HM821W30OT
		16×20	0.10	0.026	3070	ERJ1HM821L20OT
	1000	12.5×35	0.10	0.021	3810	ERJ1HM102W35OT
		16×25	0.10	0.022	3510	ERJ1HM102L25OT
63(1J)	18	5×11	0.09	0.71	240	ERJ1JM180D11OT
		6.3×9	0.09	0.92	200	ERJ1JM180E09OT
	47	6.3×11	0.09	0.28	420	ERJ1JM470E11OT
		8×9	0.09	0.36	350	ERJ1JM470F09OT
	82	8×12	0.09	0.18	720	ERJ1JM820F12OT
		10×9	0.09	0.24	610	ERJ1JM820G09OT
	100	8×16	0.09	0.13	990	ERJ1JM101F16OT
	120	10×12.5	0.09	0.11	990	ERJ1JM121G1BOT
	150	8×20	0.09	0.096	1200	ERJ1JM151F20OT
	180	10×16	0.09	0.076	1200	ERJ1JM181G16OT
	270	10×20	0.09	0.056	1570	ERJ1JM271G20OT
		12.5×16	0.09	0.072	1570	ERJ1JM271W16OT
	330	10×25	0.09	0.046	1990	ERJ1JM331G25OT
	390	12.5×20	0.09	0.041	1990	ERJ1JM391W20OT
	470	12.5×25	0.09	0.031	2460	ERJ1JM471W25OT
	560	12.5×30	0.09	0.028	2760	ERJ1JM561W30OT
		16×20	0.09	0.032	2380	ERJ1JM561L20OT
	680	12.5×35	0.09	0.024	3040	ERJ1JM681W35OT
	820	16×25	0.09	0.025	2890	ERJ1JM821L25OT
80(1B)	12	5×11	0.09	1.2	220	ERJ1BM120D11OT
		6.3×9	0.09	1.6	180	ERJ1BM120E09OT
	27	6.3×11	0.09	0.46	370	ERJ1BM270E11OT
		8×9	0.09	0.6	310	ERJ1BM270F09OT
	47	8×12	0.09	0.29	620	ERJ1BM470F12OT
		10×9	0.09	0.38	520	ERJ1BM470G09OT
	56	8×16	0.09	0.2	780	ERJ1BM560F16OT
	68	10×12.5	0.09	0.17	780	ERJ1BM680G1BOT
	82	8×20	0.09	0.16	1040	ERJ1BM820F20OT
	100	10×16	0.09	0.11	1040	ERJ1BM101G16OT
	150	10×20	0.09	0.084	1430	ERJ1BM151G20OT
		12.5×16	0.09	0.11	1430	ERJ1BM151W16OT
	180	10×25	0.09	0.069	1620	ERJ1BM181G25OT
	220	12.5×20	0.09	0.062	1750	ERJ1BM221W20OT
	270	12.5×25	0.09	0.047	2210	ERJ1BM271W25OT
	330	12.5×30	0.09	0.042	2400	ERJ1BM331W30OT
		16×20	0.09	0.048	1950	ERJ1BM331L20OT
	390	12.5×35	0.09	0.036	2600	ERJ1BM391W35OT
	470	12.5×40	0.09	0.032	2860	ERJ1BM471W40OT
		16×25	0.09	0.038	2430	ERJ1BM471L25OT
		18×20	0.09	0.045	2270	ERJ1BM471M20OT
	560	16×30	0.09	0.032	2640	ERJ1BM561L30OT
	680	16×35	0.09	0.029	2860	ERJ1BM681L35OT
		18×25	0.09	0.036	2500	ERJ1BM681M25OT
	820	16×40	0.09	0.027	3510	ERJ1BM821L40OT
		18×30	0.09	0.03	2860	ERJ1BM821M30OT
	1000	18×35	0.09	0.027	3510	ERJ1BM102M35OT
	1200	18×40	0.09	0.026	3860	ERJ1BM122M40OT

RJ series

STANDARD RATINGS

WV (Vdc)	Cap (μF)	Size ΦDxL(mm)	tanδ	Impedance (Ωmax/20°C, 100kHz)	Rated ripple current (mArms/105°C, 100kHz)	Part Number
100(1K)	8.2	5×11	0.08	1.2	220	ERJ1KM8R2D11OT
		6.3×9	0.08	1.6	180	ERJ1KM8R2E09OT
	18	6.3×11	0.08	0.46	370	ERJ1KM180E11OT
		8×9	0.08	0.6	310	ERJ1KM180F09OT
	33	8×12	0.08	0.29	620	ERJ1KM330F12OT
		10×9	0.08	0.38	520	ERJ1KM330G09OT
	47	8×16	0.08	0.2	780	ERJ1KM470F16OT
	56	10×12.5	0.08	0.17	780	ERJ1KM560G1BOT
	68	8×20	0.08	0.16	1040	ERJ1KM680F20OT
	82	10×16	0.08	0.11	1040	ERJ1KM820G16OT
	100	10×20	0.08	0.084	1430	ERJ1KM101G20OT
		12.5×16	0.08	0.11	1430	ERJ1KM101W16OT
	120	10×25	0.08	0.069	1620	ERJ1KM121G25OT
	150	12.5×20	0.08	0.062	1750	ERJ1KM151W20OT
	220	12.5×25	0.08	0.047	2210	ERJ1KM221W25OT
	270	12.5×30	0.08	0.042	2400	ERJ1KM271W30OT
		16×20	0.08	0.048	1950	ERJ1KM271L20OT
	330	12.5×35	0.08	0.036	2600	ERJ1KM331W35OT
	390	12.5×40	0.08	0.032	2860	ERJ1KM391W40OT
		16×25	0.08	0.038	2430	ERJ1KM391L25OT
		18×20	0.08	0.045	2270	ERJ1KM391M20OT
	470	16×30	0.08	0.032	2640	ERJ1KM471L30OT
		18×25	0.08	0.036	2500	ERJ1KM471M25OT
	560	16×35	0.08	0.029	2860	ERJ1KM561L35OT
		18×30	0.08	0.03	2860	ERJ1KM561M30OT
	680	16×40	0.08	0.027	3510	ERJ1KM681L40OT
		18×35	0.08	0.027	3510	ERJ1KM681M35OT
	820	18×40	0.08	0.026	3860	ERJ1KM821M40OT
120(2B)	10	6.3×11	0.12	4.6	110	ERJ2BM100E11OT
	15	6.3×12	0.12	3.8	145	ERJ2BM150E12OT
	18	8×9	0.12	3.5	165	ERJ2BM180F09OT
	22	8×12	0.12	3.0	180	ERJ2BM220F12OT
	33	8×16	0.12	2.5	320	ERJ2BM330F16OT
		10×12.5	0.12	2.5	320	ERJ2BM330G1BOT
	47	8×20	0.12	2.2	385	ERJ2BM470F20OT
		10×16	0.12	2.0	400	ERJ2BM470G16OT
	56	10×16	0.12	1.9	410	ERJ2BM560G16OT
	68	10×16	0.12	1.8	420	ERJ2BM680G16OT
	82	10×20	0.12	1.6	435	ERJ2BM820G20OT
	100	10×25	0.12	1.3	540	ERJ2BM101G25OT
	120	12.5×20	0.12	1.1	750	ERJ2BM121W20OT
	150	12.5×25	0.12	0.85	810	ERJ2BM151W25OT
	220	13×30	0.12	0.65	990	ERJ2BM221K30OT
		16×20	0.12	0.65	990	ERJ2BM221L20OT
	270	16×25	0.12	0.47	1125	ERJ2BM271L25OT
		18×20	0.12	0.47	1125	ERJ2BM271M20OT
	330	16×30	0.12	0.36	1215	ERJ2BM331L30OT
		18×25	0.12	0.36	1215	ERJ2BM331M25OT
	470	16×40	0.12	0.26	1350	ERJ2BM471L40OT
		18×30	0.12	0.26	1350	ERJ2BM471M30OT

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ERM1EM470D11OT ERF1BM221G20OT ERR1VM220D07OT ERS1HM4R7D11OT EWH1EM331F12OT EMK1EM221FB0D00R EMK1VM330E83D00R ERE1EM221F12OT ERF1EM681G16OT ERS1EM220D11OT EHS2WM470L25OT ERF1BM471L20OT ERJ1VM471F20OT ERS1HM221G16OT EWH1HM101F11OT SPZ1EM470D07O00RAXXX EWH2WM820M25OT ERJ1CM102G16OT ERJ1HM560E11OT ERF1KM101G20OT ERF1VM471G20OT ERS1KM220F09OT ERS1HM2R2D11OT ERF1KM151G20OT ERR1HM222L30OT ERS1HM561W16OT ERM1HM100D11OT ERS1VM221F16OT ERZ1HM101E12OTG SPZ1AM221E05O00R