

RR series

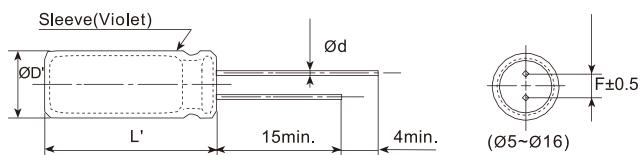
- High frequency, low impedance, high reliability
- Endurance: +105°C 2,000 hours
- Suitable for switching power, UPS, power sources, etc.
- RoHS Compliant



SPECIFICATIONS

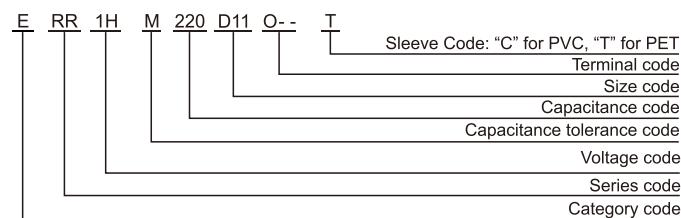
Items	Characteristics						
Category Temperature Range	-40~+105°C						
Rated Voltage Range	6.3~50 V _{dc}						
Capacitance Tolerance	$\pm 20\%$ (M) (at 20°C, 120Hz)						
Leakage Current	I < 0.01CV or 3μA, whichever is greater. Where, I:Max.leakage current (μA),C:Nominal capacitance (μF),V: Rated voltage (V) (at 20°C after 2 minutes)						
Dissipation Factor (tanδ)	Rated Voltage(V _{dc})	6.3	10	16	25	35	
	tanδ (max.)	0.22	0.18	0.14	0.12	0.10	
	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})	6.3	10	16	25	35	
	Z(-25°C)/Z(+20°C)	2				(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 2,000 hours at 105°C.						
	Capacitance Change	$\leq \pm 20\%$ of the initial value (6.3,10V: $\pm 30\%$)					
	D.F. (tanδ)	$\leq 200\%$ of the initial specified value					
	Leakage Current	\leq 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	$\leq \pm 20\%$ of the initial value (6.3,10V: $\pm 30\%$)					
	D.F. (tanδ)	$\leq 200\%$ of the initial specified value					
	Leakage Current	$\leq 200\%$ of the initial specified value					

DIMENSIONS[mm]



ØD	5	6.3	8	10	12.5	16
Ød	0.45	0.5	0.5	0.6	0.6	0.8
F	2.0	2.5	3.5	5.0	5.0	7.5
ØD'	$\text{ØD}+0.5\text{max.}$					
L'	$L+2\text{max.}$					

PART NUMBERING SYSTEM



RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Freq.(Hz) Cap.(μF)	120	1k	10k	100k
Cap.<220	0.40	0.75	0.90	1.00
220 Cap.<680	0.50	0.85	0.94	1.00
680 Cap.<2200	0.60	0.87	0.95	1.00
2200 Cap.<4700	0.75	0.90	0.95	1.00
Cap. 4700	0.85	0.95	0.98	1.00

RR series

■ STANDARD RATINGS

WV (Vdc)	Cap (μF)	Size DxL(mm)	$\tan\delta$	Impedance ($\Omega_{max@20^\circ C, 100kHz}$)	Rated ripple current (mA rms/ $105^\circ C, 100kHz$)	Part Number
6.3(0J)	150	5×11	0.22	0.3	250	ERR0JM151D11OT
		6.3×7	0.22	0.3	250	ERR0JM151E07OT
	330	6.3×9	0.22	0.15	350	ERR0JM331E09OT
		6.3×11	0.22	0.13	405	ERR0JM331E11OT
	560	8×9	0.22	0.12	605	ERR0JM561F09OT
		8×12	0.22	0.072	760	ERR0JM561F12OT
	820	8×16	0.22	0.056	995	ERR0JM821F16OT
		10×9	0.22	0.085	800	ERR0JM821G09OT
	1000	10×12.5	0.22	0.053	1030	ERR0JM102G1BOT
		8×20	0.22	0.041	1250	ERR0JM122F20OT
	1200	10×16	0.22	0.038	1430	ERR0JM122G16OT
	1500	10×20	0.22	0.023	1820	ERR0JM152G20OT
	2200	10×25	0.24	0.022	2150	ERR0JM222G25OT
	3300	12.5×20	0.26	0.021	2360	ERR0JM332W20OT
	3900	12.5×25	0.26	0.018	2770	ERR0JM392W25OT
	4700	12.5×30	0.28	0.016	3290	ERR0JM472W30OT
	5600	12.5×35	0.30	0.015	3400	ERR0JM562W35OT
		16×20	0.30	0.018	3140	ERR0JM562L20OT
	6800	16×25	0.32	0.016	3460	ERR0JM682L25OT
10(1A)	100	5×7	0.18	1.38	185	ERR1AM101D07OT
		5×11	0.18	0.3	250	ERR1AM101D11OT
	220	6.3×7	0.18	0.35	405	ERR1AM221E07OT
		6.3×11	0.18	0.13	405	ERR1AM221E11OT
	470	8×9	0.18	0.18	606	ERR1AM471F09OT
		8×11	0.18	0.072	760	ERR1AM471F11OT
		8×16	0.18	0.056	995	ERR1AM681F16OT
	680	10×9	0.18	0.085	760	ERR1AM681G09OT
		10×12.5	0.18	0.053	1030	ERR1AM681G1BOT
	1000	8×20	0.18	0.041	1250	ERR1AM102F20OT
		10×16	0.18	0.038	1430	ERR1AM102G16OT
	1200	10×20	0.18	0.023	1820	ERR1AM122G20OT
	1500	10×25	0.18	0.022	2150	ERR1AM152G25OT
	2200	12.5×20	0.20	0.021	2360	ERR1AM222W20OT
	3300	12.5×25	0.22	0.018	2770	ERR1AM332W25OT
	3900	12.5×30	0.22	0.016	3290	ERR1AM392W30OT
		16×20	0.22	0.018	3140	ERR1AM392L20OT
	4700	12.5×35	0.24	0.015	3400	ERR1AM472W35OT
	5600	16×25	0.26	0.016	3460	ERR1AM562L25OT
16(1C)	56	5×7	0.14	0.7	180	ERR1CM560D07OT
		5×11	0.14	0.3	250	ERR1CM560D11OT
	120	6.3×7	0.14	0.4	300	ERR1CM121E07OT
		6.3×11	0.14	0.13	405	ERR1CM121E11OT
	330	8×7	0.14	0.14	510	ERR1CM331F07OT
		8×12	0.14	0.072	760	ERR1CM331F12OT
	470	8×16	0.14	0.056	795	ERR1CM471F16OT
		10×12.5	0.14	0.053	1030	ERR1CM471G1BOT
	680	8×20	0.14	0.041	1250	ERR1CM681F20OT
		10×16	0.14	0.038	1430	ERR1CM681G16OT
	1000	10×20	0.14	0.023	1820	ERR1CM102G20OT
	1200	10×25	0.14	0.022	2150	ERR1CM122G25OT
	1500	12.5×20	0.14	0.021	2360	ERR1CM152W20OT
	2200	12.5×25	0.16	0.018	2770	ERR1CM222W25OT
	2700	12.5×30	0.16	0.016	3290	ERR1CM272W30OT
		16×20	0.16	0.018	3140	ERR1CM272L20OT
	3300	12.5×35	0.18	0.015	3400	ERR1CM332W35OT
	3900	16×25	0.18	0.016	3460	ERR1CM392L25OT

WV (Vdc)	Cap (μF)	Size DxL(mm)	$\tan\delta$	Impedance ($\Omega_{max@20^\circ C, 100kHz}$)	Rated ripple current (mA rms/ $105^\circ C, 100kHz$)	Part Number
25(1E)	47	5×11	0.12	0.3	250	ERR1EM470D11OT
		6.3×7	0.12	1.1	200	ERR1EM470E07OT
	100	6.3×11	0.12	0.13	405	ERR1EM101E11OT
		8×7	0.12	0.3	430	ERR1EM101F07OT
	220	8×9	0.12	0.1	600	ERR1EM221F09OT
		8×12	0.12	0.072	760	ERR1EM221F12OT
	330	8×16	0.12	0.056	995	ERR1EM331F16OT
	470	8×20	0.12	0.041	1250	ERR1EM471F20OT
	680	10×12.5	0.12	0.053	1030	ERR1EM681G1BOT
	820	10×16	0.12	0.038	1430	ERR1EM821G16OT
	1000	10×20	0.12	0.023	1820	ERR1EM102G20OT
	1500	10×25	0.12	0.022	2150	ERR1EM152G25OT
		12.5×20	0.12	0.021	2360	ERR1EM182W20OT
	1800	12.5×30	0.12	0.016	3290	ERR1EM182W30OT
		16×20	0.12	0.018	3140	ERR1EM182L20OT
	2200	12.5×25	0.14	0.018	2770	ERR1EM222W25OT
		12.5×35	0.14	0.015	3400	ERR1EM222W35OT
	2700	16×25	0.14	0.016	3460	ERR1EM272L25OT
35(1V)	33	5×7	0.10	1.15	160	ERR1VM330D07OT
		5×11	0.10	0.3	250	ERR1VM330D11OT
	56	6.3×11	0.10	0.13	405	ERR1VM560E11OT
		8×7	0.10	0.39	405	ERR1VM560F07OT
	150	8×9	0.10	0.17	600	ERR1VM151F09OT
		8×12	0.10	0.072	760	ERR1VM151F12OT
	220	8×16	0.10	0.056	995	ERR1VM221F16OT
		10×12.5	0.10	0.053	1030	ERR1VM221G1BOT
	270	8×20	0.10	0.041	1250	ERR1VM271F20OT
	330	10×16	0.10	0.038	1430	ERR1VM331G16OT
	470	10×20	0.10	0.023	1820	ERR1VM471G20OT
	560	10×25	0.10	0.022	2150	ERR1VM561G25OT
	680	12.5×20	0.10	0.021	2360	ERR1VM681W20OT
	1000	12.5×30	0.10	0.018	2770	ERR1VM102W25OT
	1200	12.5×30	0.10	0.016	3290	ERR1VM122W30OT
	1500	12.5×35	0.10	0.015	3400	ERR1VM152W35OT
	1800	16×25	0.10	0.016	3460	ERR1VM182L25OT
50(1H)	22	5×11	0.08	0.34	238	ERR1HM220D11OT
		6.3×7	0.08	0.52	200	ERR1HM220E07OT
	56	6.3×12	0.08	0.14	385	ERR1HM560E12OT
		8×7	0.08	0.36	320	ERR1HM560F07OT
	100	8×9	0.08	0.2	580	ERR1HM101F09OT
		8×12	0.08	0.074	724	ERR1HM101F12OT
	120	8×16	0.08	0.061	950	ERR1HM121F16OT
	150	10×12.5	0.08	0.061	979	ERR1HM151G1BOT
	180	8×20	0.08	0.046	1190	ERR1HM181F20OT
	220	10×16	0.08	0.042	1370	ERR1HM221G16OT
	270	10×20	0.08	0.03	1580	ERR1HM271G20OT
	330	10×25	0.08	0.028	1870	ERR1HM331G25OT
	470	12.5×20	0.08	0.027	2050	ERR1HM471W20OT
	560	12.5×25	0.08	0.023	2410	ERR1HM561W25OT
	680	12.5×30	0.08	0.021	2860	ERR1HM681W30OT
	820	12.5×35	0.08	0.019	2960	ERR1HM821W35OT
		16×20	0.08	0.023	2730	ERR1HM821L20OT
	1000	16×25	0.08	0.021	3010	ERR1HM102L25OT

Radial Type

