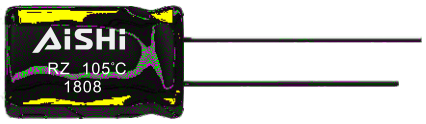
RZ series

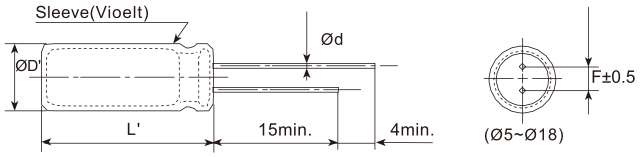
- Miniaturized,long life, low impedance
- High ripple current, high reliability
- Endurance: +105°C 6,000~10,000 hours
- **RoHS Compliant**



SPECIFICATIONS

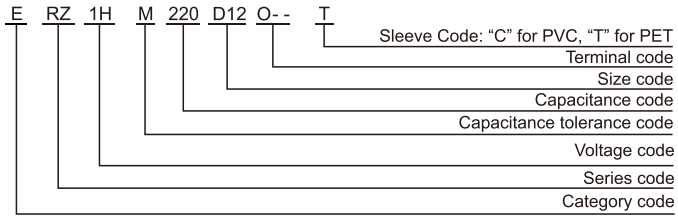
Items	Characteristics
Category Temperature Range	-40~+105°C
Rated Voltage Range	6.3~50 Vdc
Capacitance Tolerance	±20%(M) (at 20°C,120Hz)
Leakage Current	I≤0.01CV or 3μA, whichever is greater. Where, I:Max.leakage current (μA),C:Nominal capacitance (μF),V: Rated voltage (V) (at 20°C after 2 minutes)
Dissipation Factor (tanδ)	Rated Voltage(Vdc): 6.3 / 10 / 16 / 25 / 35 / 50 tanδ (max.): 0.22 / 0.19 / 0.16 / 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(Vdc): 6.3 / 10 / 16~50 Z(-25°C)/Z(+20°C): 2 Z(-40°C)/Z(+20°C): 6 / 4 / 3 (at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after DC voltage plus the rated ripple current is applied for a specified period of time at 105 °C. Capacitance Change: ≤±25% of the initial value (6.3,10V:≤±30%) D.F. (tanδ): ≤200% of the initial specified value Leakage Current: ≤The initial specified value Case Dia.(mm) / Load life (hours): ØD≤6.3 / 6,000; ØD=8 / 8,000; ØD≥10 / 10,000
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. Capacitance Change: ≤±25% of the initial value (6.3,10V:≤±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



RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Cap.(μF) \ Freq.(Hz)	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

The endurance of capacitors is shortened with internal heating produced by ripple current at the rate of halving the lifetime with every 5°C rise. When long life performance is required in actual use, the rms ripple current has to be reduced.

RZ 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
6.3(0J)	220	5×12	0.22	0.22	345	ERZ0JM221D12OT
		6.3×9	0.22	0.30	310	ERZ0JM221E09OT
	470	6.3×12	0.22	0.094	540	ERZ0JM471E12OT
		8×9	0.22	0.120	485	ERZ0JM471F09OT
	820	8×12	0.22	0.056	945	ERZ0JM821F12OT
		10×9	0.22	0.072	850	ERZ0JM821G09OT
	1200	8×16	0.22	0.045	1250	ERZ0JM122F16OT
		10×12.5	0.22	0.039	1330	ERZ0JM122G1BOT
	1500	8×20	0.22	0.029	1500	ERZ0JM152F20OT
	1800	10×16	0.22	0.028	1760	ERZ0JM182G16OT
	2200	10×20	0.24	0.020	1960	ERZ0JM222G20OT
	2700	10×25	0.24	0.018	2250	ERZ0JM272G25OT
	3900	12.5×20	0.26	0.017	2480	ERZ0JM392W20OT
	4700	12.5×25	0.28	0.015	2900	ERZ0JM472W25OT
	5600	12.5×30	0.30	0.013	3450	ERZ0JM562W30OT
	6800	12.5×35	0.32	0.012	3570	ERZ0JM682W35OT
		16×20	0.32	0.015	3250	ERZ0JM682L20OT
	8200	16×25	0.36	0.013	3630	ERZ0JM822L25OT
	10000	18×25	0.40	0.012	3650	ERZ0JM103M25OT
10(1A)	150	5×12	0.19	0.22	345	ERZ1AM151D12OT
		6.3×9	0.19	0.30	310	ERZ1AM151E09OT
	330	6.3×12	0.19	0.094	540	ERZ1AM331E12OT
		8×9	0.19	0.120	485	ERZ1AM331F09OT
	680	8×11	0.19	0.056	945	ERZ1AM681F11OT
		10×9	0.19	0.072	850	ERZ1AM681G09OT
	1000	8×16	0.19	0.045	1250	ERZ1AM102F16OT
		10×12.5	0.19	0.039	1330	ERZ1AM102G1BOT
	1500	8×20	0.19	0.029	1500	ERZ1AM152F20OT
		10×16	0.19	0.028	1760	ERZ1AM152G16OT
	1800	10×20	0.19	0.020	1960	ERZ1AM182G20OT
	2200	10×25	0.21	0.018	2250	ERZ1AM222G25OT
	3300	12.5×20	0.23	0.017	2480	ERZ1AM332W20OT
	3900	12.5×25	0.23	0.015	2900	ERZ1AM392W25OT
	4700	12.5×30	0.25	0.013	3450	ERZ1AM472W30OT
		16×20	0.25	0.015	3250	ERZ1AM472L20OT
	5600	12.5×35	0.27	0.012	3570	ERZ1AM562W35OT
	6800	16×25	0.29	0.013	3630	ERZ1AM682L25OT
	8200	18×25	0.33	0.012	3650	ERZ1AM822M25OT
16(1C)	100	5×12	0.16	0.22	345	ERZ1CM101D12OT
		6.3×9	0.16	0.30	310	ERZ1CM101E09OT
	220	6.3×12	0.16	0.094	540	ERZ1CM221E12OT
		8×9	0.16	0.120	485	ERZ1CM221F09OT
	470	8×12	0.16	0.056	945	ERZ1CM471F12OT
		10×9	0.16	0.072	850	ERZ1CM471G09OT
	680	8×16	0.16	0.045	1250	ERZ1CM681F16OT
		10×12.5	0.16	0.039	1330	ERZ1CM681G1BOT
	1000	8×20	0.16	0.029	1500	ERZ1CM102F20OT
		10×16	0.16	0.028	1760	ERZ1CM102G16OT
	1500	10×20	0.16	0.020	1960	ERZ1CM152G20OT
	1800	10×25	0.16	0.018	2250	ERZ1CM182G25OT
	2200	12.5×20	0.18	0.017	2480	ERZ1CM222W20OT
	2700	12.5×25	0.18	0.015	2900	ERZ1CM272W25OT
	3300	12.5×30	0.20	0.013	3450	ERZ1CM332W30OT
		16×20	0.20	0.015	3250	ERZ1CM332L20OT
	3900	12.5×35	0.20	0.012	3570	ERZ1CM392W35OT
	4700	16×25	0.22	0.013	3630	ERZ1CM472L25OT
	5600	18×25	0.24	0.012	3650	ERZ1CM562M25OT

WV (Vdc)	Cap (μF)	Size ΦDxL(mm)	tanδ	Impedance (Ωmax/20°C, 100kHz)	Rated ripple current (mArms/105°C, 100kHz)	Part Number
25(1E)	68	5×12	0.14	0.22	345	ERZ1EM680D12OT
		6.3×9	0.14	0.30	310	ERZ1EM680E09OT
	150	6.3×12	0.14	0.094	540	ERZ1EM151E12OT
		8×9	0.14	0.120	485	ERZ1EM151F09OT
	330	8×12	0.14	0.056	945	ERZ1EM331F12OT
		10×9	0.14	0.072	850	ERZ1EM331G09OT
	390	8×16	0.14	0.045	1250	ERZ1EM391F16OT
	470	10×12.5	0.14	0.039	1330	ERZ1EM471G1BOT
	560	8×20	0.14	0.029	1500	ERZ1EM561F20OT
	680	10×16	0.14	0.028	1760	ERZ1EM681G16OT
	820	10×20	0.14	0.020	1960	ERZ1EM821G20OT
	1000	10×25	0.14	0.018	2250	ERZ1EM102G25OT
	1500	12.5×20	0.14	0.017	2480	ERZ1EM152W20OT
	1800	12.5×25	0.14	0.015	2900	ERZ1EM182W25OT
	2200	12.5×30	0.16	0.013	3450	ERZ1EM222W30OT
		16×20	0.16	0.015	3250	ERZ1EM222L20OT
	2700	12.5×35	0.16	0.012	3570	ERZ1EM272W35OT
	3300	16×25	0.18	0.013	3630	ERZ1EM332L25OT
	3900	18×25	0.18	0.012	3650	ERZ1EM392M25OT
35(1V)	47	5×12	0.12	0.33	345	ERZ1VM470D12OT
		6.3×9	0.12	0.30	310	ERZ1VM470E09OT
	100	6.3×12	0.12	0.094	540	ERZ1VM101E12OT
		8×9	0.12	0.120	485	ERZ1VM101F09OT
	220	8×16	0.12	0.056	945	ERZ1VM221F16OT
	270	8×20	0.12	0.045	1250	ERZ1VM271F20OT
	330	10×12.5	0.12	0.039	1330	ERZ1VM331G1BOT
	390	8×20	0.12	0.029	1500	ERZ1VM391F20OT
	470	10×16	0.12	0.028	1760	ERZ1VM471G16OT
	560	10×20	0.12	0.020	1960	ERZ1VM561G20OT
	680	10×25	0.12	0.018	2250	ERZ1VM681G25OT
	1000	12.5×20	0.12	0.017	2480	ERZ1VM102W20OT
	1200	12.5×25	0.12	0.015	2900	ERZ1VM122W25OT
	1500	12.5×30	0.12	0.013	3450	ERZ1VM152W30OT
		16×20	0.12	0.015	3250	ERZ1VM152L20OT
	1800	12.5×35	0.12	0.012	3570	ERZ1VM182W35OT
	2200	16×25	0.14	0.013	3630	ERZ1VM222L25OT
	2700	18×25	0.14	0.012	3650	ERZ1VM272M25OT
50(1H)	22	5×12	0.10	0.34	238	ERZ1HM220D12OT
		6.3×9	0.10	0.44	214	ERZ1HM220E09OT
	56	6.3×12	0.10	0.14	385	ERZ1HM560E12OT
		8×9	0.10	0.18	345	ERZ1HM560F09OT
	100	8×12	0.10	0.074	724	ERZ1HM101F12OT
		10×9	0.10	0.096	650	ERZ1HM101G09OT
	120	8×16	0.10	0.061	950	ERZ1HM121F16OT
	150	10× 12.5	0.10	0.061	979	ERZ1HM151G1BOT
	180	8×20	0.10	0.046	1190	ERZ1HM181F20OT
	220	10×16	0.10	0.042	1370	ERZ1HM221G16OT
	270	10×20	0.10	0.030	1580	ERZ1HM271G20OT
	330	10×25	0.10	0.028	1870	ERZ1HM331G25OT
	470	12.5×20	0.10	0.027	2050	ERZ1HM471W20OT
	560	12.5×25	0.10	0.023	2410	ERZ1HM561W25OT
	680	12.5×30	0.10	0.021	2860	ERZ1HM681W30OT
	820	12.5×35	0.10	0.019	2960	ERZ1HM821W35OT
		16×20	0.10	0.023	2730	ERZ1HM821L20OT
	1000	16×25	0.10	0.021	3010	ERZ1HM102L25OT
	1500	18×25	0.10	0.019	3290	ERZ1HM152M25OT