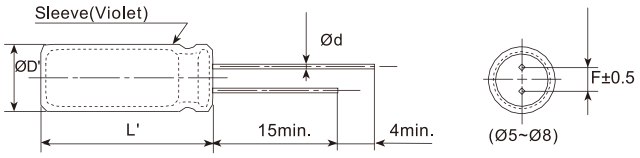
RM series

- Endurance +105°C 10,000 hours
- Miniaturized,long life
- **RoHS Compliant**

SPECIFICATIONS

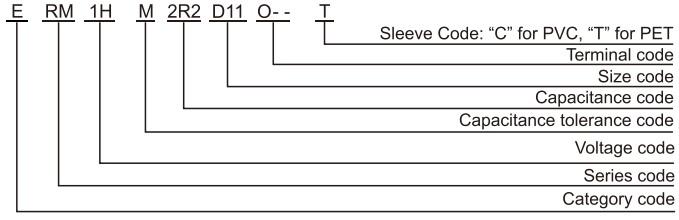
Items	Characteristics								
Category Temperature Range	-40~+105°C								
Rated Voltage Range	10~100 Vdc								
Capacitance Tolerance	±20%(M) (at 20°C,120Hz)								
Leakage Current	I 0.01CV or 3μA, whichever is greater. Where,I:Max.leakage current (μA),C:Nominal capacitance (μF),V: Rated voltage (V) (at 20°C after 2 minutes)								
Dissipation Factor (tanδ)	Rated Voltage(Vdc)	10	16	25	35	50	63	100	
	tanδ (max.)	0.45	0.35	0.30	0.22	0.19	0.17	0.15	
	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	100	
	Z(-25°C)/Z(+20°C)	8	6	4		3			
	Z(-40°C)/Z(+20°C)	13	10	8		7			(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 10,000 hours at 105°C.								
	Capacitance Change	≤±25% of the initial value							
	D.F. (tanδ)	≤300% 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	≤±20% of the initial value							
	D.F. (tanδ)	≤200% of the initial specified value							
	Leakage Current	≤200% of the initial specified value							

DIMENSIONS[mm]



ØD	5	6.3	8
Ød	0.5	0.5	0.5
F	2.0	2.5	3.5
ØD'	ØD+0.5max.		
L'	L+1.5max.		

PART NUMBERING SYSTEM



RATED RIPPLE CURRENT MULTIPLIERS

Frequency correction factor for ripple current

Freq.(Hz) / Cap.(μF)	120	1k	10k	100k
Cap.<22	0.42	0.60	0.80	1.00
22 Cap.<47	0.55	0.75	0.90	1.00
Cap. 47	0.70	0.85	0.95	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.

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STANDARD RATINGS

WV (V_{dc})	Cap (μF)	Size DxL(mm)	tanδ	Rated ripple current (mArms/105°C,100kHz)	Part Number
10(1A)	100	5×11	0.45	130	ERM1AM101D11OT
	220	6.3×11	0.45	210	ERM1AM221E11OT
	330	8×11	0.45	330	ERM1AM331F11OT
16(1C)	47	5×11	0.35	130	ERM1CM470D11OT
	100	6.3×11	0.35	210	ERM1CM101E11OT
	220	8×11	0.35	330	ERM1CM221F11OT
25(1E)	33	5×11	0.30	130	ERM1EM330D11OT
	47	5×11	0.30	130	ERM1EM470D11OT
	100	6.3×11	0.30	210	ERM1EM101E11OT
35(1V)	33	5×11	0.22	130	ERM1VM330D11OT
	47	6.3×11	0.22	210	ERM1VM470E11OT
	100	8×11	0.22	330	ERM1VM101F11OT
50(1H)	0.47	5×11	0.19	12	ERM1HMR47D11OT
	1	5×11	0.19	25	ERM1HM010D11OT
	2.2	5×11	0.19	35	ERM1HM2R2D11OT
	3.3	5×11	0.19	70	ERM1HM3R3D11OT
	4.7	5×11	0.19	80	ERM1HM4R7D11OT
	10	5×11	0.19	90	ERM1HM100D11OT
	22	5×12	0.19	110	ERM1HM220D12OT
	33	6.3×11	0.19	190	ERM1HM330E11OT
	47	6.3×11	0.19	190	ERM1HM470E11OT
	100	8×12	0.19	270	ERM1HM101F12OT
63(1J)	10	5×11	0.17	80	ERM1JM100D11OT
	22	6.3×11	0.17	170	ERM1JM220E11OT
	33	6.3×12	0.17	170	ERM1JM330E12OT
	47	8×12	0.17	240	ERM1JM470F12OT
100(1K)	0.47	5×11	0.15	20	ERM1KMR47D11OT
	1	5×11	0.15	40	ERM1KM010D11OT
	2.2	5×11	0.15	50	ERM1KM2R2D11OT
	3.3	5×11	0.15	60	ERM1KM3R3D11OT
	4.7	5×11	0.15	70	ERM1KM4R7D11OT
	10	6.3×12	0.15	150	ERM1KM100E12OT
	22	8×12	0.15	230	ERM1KM220F12OT