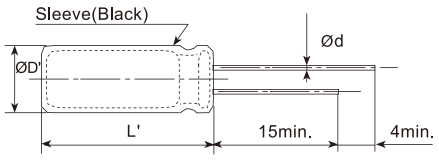
M7 series

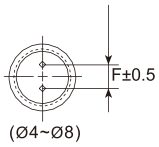
- Standard miniature series with 7mm height
- Endurance: +85°C 1,000 hours
- **RoHS Compliant**

SPECIFICATIONS

Items	Characteristics										
Category Temperature Range	-40~+85°C										
Rated Voltage Range	4~100 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)	4	6.3	10	16	25	35	50	63	100	
	tanδ (max.)	0.35	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.08	(at 20°C,120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated Voltage(Vdc)	4	6.3	10	16	25	35	50	63	100	
	Z(-25°C)/Z(+20°C)	6	4	3	2						
	Z(-40°C)/Z(+20°C)	16	10	8	6	4					(at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 1,000 hours at 85°C.										
	Capacitance Change	≤±20% of the initial value									
	D.F. (tanδ)	≤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 exposing them for 500 hours at 85°C without voltage applied.										
	Capacitance Change	≤±20% of the initial value									
	D.F. (tanδ)	≤200% of the initial specified value									
	Leakage Current	≤200% of the initial specified value									

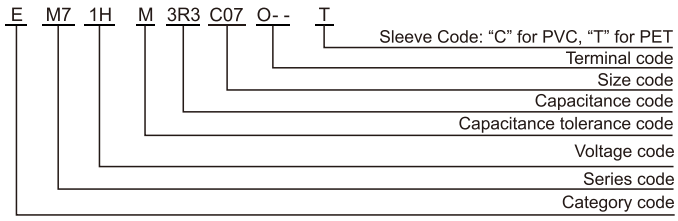
DIMENSIONS[mm]





ØD	4	5	6.3	8
Ød	0.45	0.45	0.5	0.5
F	1.5	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

WV(Vdc) \ Freq.(Hz)	50/60	120	1k	10k-100k
4 to 16	0.80	1.00	1.10	1.20
25 to 35	0.80	1.00	1.50	1.70
≥50	0.80	1.00	1.60	1.90

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.

Radial Type