

# KME Series

- Endurance with ripple current : 105°C 1,000 hours
- Solvent-proof type except 350 to 400V<sub>dc</sub>
- RoHS Compliant

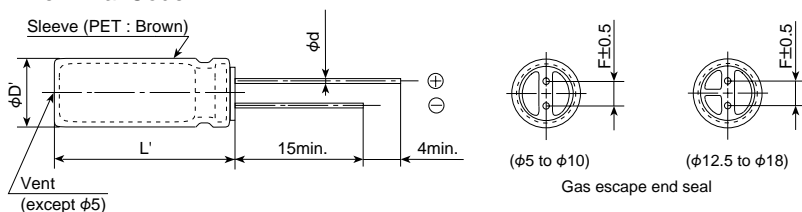


## ◆SPECIFICATIONS

Items	Characteristics	
Category Temperature Range	-55 to +105°C(6.3 to 100V <sub>dc</sub> ) -40 to +105°C(160 to 400V <sub>dc</sub> )	
Rated Voltage Range	6.3 to 400V <sub>dc</sub>	
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)	
Leakage Current	6.3 to 100V <sub>dc</sub>	160 to 400V <sub>dc</sub>
	I=0.03CV or 4μA, whichever is greater. (at 20°C after 1 minute)	CV \ Time   After 1minute   After 5minutes
	I=0.01CV or 3μA, whichever is greater. (at 20°C after 2 minutes)	CV≤1,000   I=0.1CV+40 max.   I=0.03CV+15 max.
		CV>1,000   I=0.04CV+100 max.   I=0.02CV+25 max. (at 20°C)
Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V)		
Dissipation Factor (tanδ)	Rated voltage (V <sub>dc</sub> )	6.3V 10V 16V 25V 35V 50V 63V 100V 160 to 250V 350 to 400V
	tanδ (Max.)	0.22 0.19 0.16 0.14 0.12 0.10 0.09 0.08 0.08 0.20 0.24 (at 20°C, 120Hz)
When nominal capacitance exceeds 1,000μF, add 0.02 to the value above for each 1,000μF increase.		
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V <sub>dc</sub> )	6.3V 10V 16V 25V 35V 50V 63V 100V 160 to 250V 350 to 400V
	Z(-25°C)/Z(+20°C)	4 3 2 2 2 2 2 2 3 6 (at 120Hz)
	Z(-40°C)/Z(+20°C)	8 6 4 3 3 3 3 3 4 6 (at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20°C after subjected to DC voltage with the rated ripple current is applied for 1,000 hours at 105°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 1,000 hours at 105°C without voltage applied.	
	Rated voltage	6.3 to 100V <sub>dc</sub> 160 to 400V <sub>dc</sub>
	Capacitance change	≤±20% of the initial value ≤±20% of the initial value
	D.F. (tanδ)	≤200% of the initial specified value ≤200% of the initial specified value
	Leakage current	≤The initial specified value ≤500% of the initial specified value

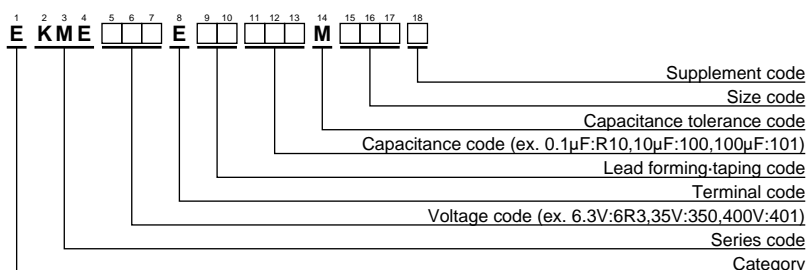
## ◆DIMENSIONS [mm]

- Terminal Code : E



φD	5	6.3	8	10	12.5	16	18
φd	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
φD'	φD+0.5max.						
L'	L+1.5max						

## ◆PART NUMBERING SYSTEM



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◆STANDARD RATINGS

□ is non solvent-proof.

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (mA <sub>rms</sub> /105°C,120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (mA <sub>rms</sub> /105°C,120Hz)	Part No.	
250	0.47	6.3 × 11	0.20	9.0	EKME251E□□R47MF11D	350	4.7	10 × 20	0.24	48	EKME351E□□4R7MJ20S	
	1.0	6.3 × 11	0.20	12	EKME251E□□1R0MF11D		10	12.5 × 20	0.24	79	EKME351E□□100MK20S	
	2.2	8 × 11.5	0.20	21	EKME251E□□2R2MHB5D		22	16 × 20	0.24	130	EKME351E□□220ML20S	
	3.3	10 × 12.5	0.20	30	EKME251E□□3R3MJC5S		33	16 × 25	0.24	175	EKME351E□□330ML25S	
	4.7	10 × 12.5	0.20	36	EKME251E□□4R7MJC5S		47	16 × 35.5	0.24	230	EKME351E□□470MLP1S	
	10	10 × 20	0.20	64	EKME251E□□100MJ20S		100	18 × 40	0.24	330	EKME351E□□101MM40S	
	22	12.5 × 25	0.20	110	EKME251E□□220MK25S		400	1.0	10 × 12.5	0.24	18	EKME401E□□1R0MJC5S
	33	12.5 × 25	0.20	140	EKME251E□□330MK25S			2.2	10 × 16	0.24	30	EKME401E□□2R2MJ16S
	47	16 × 25	0.20	180	EKME251E□□470ML25S			3.3	10 × 20	0.24	40	EKME401E□□3R3MJ20S
100	18 × 35.5	0.20	310	EKME251E□□101MMP1S	4.7	10 × 25		0.24	52	EKME401E□□4R7MJ25S		
350	0.47	8 × 11.5	0.24	10	EKME351E□□R47MHB5D	10		12.5 × 25	0.24	79	EKME401E□□100MK25S	
	1.0	10 × 12.5	0.24	18	EKME351E□□1R0MJC5S	22		16 × 25	0.24	145	EKME401E□□220ML25S	
	2.2	10 × 16	0.24	30	EKME351E□□2R2MJ16S	33		16 × 31.5	0.24	185	EKME401E□□330MLN3S	
	3.3	10 × 16	0.24	37	EKME351E□□3R3MJ16S	47		18 × 31.5	0.24	230	EKME401E□□470MMN3S	

□ : Lead forming / Taping code

◆MAXIMUM ESR

(Ω) at 20°C, 120Hz

μF \ V <sub>dc</sub>	6.3	10	16	25	35	50	63	100	160 to 250	350 to 400
0.1						1,660		1,330		
0.22						754		603		
0.33						503		402		
0.47						353		282	706	847
1.0						166		133	332	398
2.2						75.4		60.3	151	181
3.3						50.3		40.3	101	121
4.7						35.3	31.8	28.2	70.6	84.7
10						16.6	14.9	13.3	33.2	39.8
22						7.54	6.79	6.03	15.1	18.1
33					6.03	5.03	4.52	4.02	10.1	12.1
47			5.65	4.94	4.23	3.53	3.18	2.82	7.06	8.47
100	3.70	3.15	2.65	2.32	1.99	1.66	1.49	1.33	3.32	3.98
220	1.66	1.43	1.21	1.06	0.905	0.754	0.679	0.603	1.51	
330	1.11	0.955	0.804	0.704	0.603	0.503	0.452	0.402		
470	0.776	0.671	0.565	0.494	0.423	0.353	0.318	0.282		
1,000	0.370	0.315	0.265	0.232	0.199	0.166	0.149			
2,200	0.181	0.158	0.136	0.121	0.106	0.0905				
3,300	0.131	0.116	0.101	0.0905	0.0804					
4,700	0.0988	0.0882	0.0776	0.0706	0.0635					
6,800	0.0781	0.0707	0.0634	0.0585						
10,000	0.0630	0.0581	0.0531							
15,000	0.0531									

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Capacitance (μF) \ Frequency (Hz)	50	120	300	1k	10k	100k
0.1 to 4.7	0.65	1.00	1.35	1.75	2.30	2.50
10 to 47	0.75	1.00	1.25	1.50	1.75	1.80
100 to 1,000	0.80	1.00	1.15	1.30	1.40	1.50
2,200 to	0.85	1.00	1.03	1.05	1.08	1.08

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