

KME Series

- Endurance with ripple current : 105°C 1000 hours
- Solvent-proof type except 350 to 400V_{dc}
(see PRECAUTIONS AND GUIDELINES)

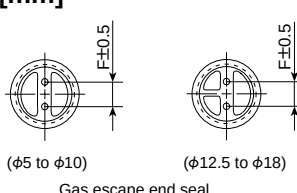
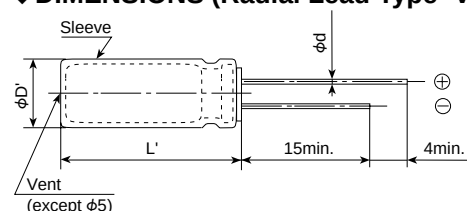
KMG ← KME
downsized



SPECIFICATIONS

Items	Characteristics												
Category													
Temperature Range	-55 to +105°C(6.3 to 100V _{dc}) -40 to +105°C(160 to 400V _{dc})												
Rated Voltage Range	6.3 to 400V _{dc}												
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)												
Leakage Current	6.3 to 100V _{dc}							160 to 400V _{dc}					
	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≤1000		I=0.1CV+40	I=0.03CV+15
								CV>1000		I=0.04CV+100	I=0.02CV+25		
								(at 20°C)					
	Where, I : Max. leakage current (μA), C : Nominal capacitance (μF), V : Rated voltage (V)												
Dissipation Factor (tanδ)	Rated voltage (V _{dc})	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	0.20	0.24		
	When nominal capacitance exceeds 1000μF, add 0.02 to the value above for each 1000μF increase. (at 20°C, 120Hz)												
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (V _{dc})	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		
	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 1000 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 1000 hours at 105°C without voltage applied.												
	Rated voltage	6.3 to 100V _{dc}						160 to 400V _{dc}					
	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 (Radial Lead Type=VB) [mm]



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

KME	50	VB	R1	M
				Cap tolerance (±20%)
				Nominal cap code
				Radial lead type
				Rated voltage in volts
				Series name

Capacitance	Code
0.1μF	R1
0.47μF	R47
1.0μF	1
4.7μF	4R7
10μF	10
100μF	100

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Capacitance (μF)	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

◆STANDARD RATINGS

μF \ V_{dc}	6.3		10		16		25		35		50		63		100	
0.1											5×11	1.3			5×11	2.6
0.22											5×11	2.9			5×11	5.8
0.33											5×11	4.4			5×11	7.8
0.47											5×11	7			5×11	10
1.0											5×11	13			5×11	15
2.2											5×11	20			5×11	23
3.3											5×11	25			5×11	29
4.7											5×11	30	5×11	32	5×11	34
10											5×11	46	5×11	50	6.3×11	56
22											5×11	68	6.3×11	82	8×11.5	96
33									5×11	75	6.3×11	90	6.3×11	100	10×12.5	140
47					5×11	77	5×11	82	6.3×11	100	6.3×11	110	8×11.5	135	10×16	180
100	5×11	95	5×11	105	6.3×11	125	6.3×11	135	8×11.5	170	8×11.5	180	10×12.5	225	12.5×20	320
220	6.3×11	160	6.3×11	175	8×11.5	215	8×11.5	230	10×12.5	300	10×16	345	10×20	400	16×25	570
330	6.3×11	195	8×11.5	245	8×11.5	260	10×12.5	335	10×16	400	10×20	460	12.5×20	540	16×25	700
470	8×11.5	270	8×11.5	290	10×12.5	370	10×16	440	10×20	520	12.5×20	610	12.5×25	700	16×31.5	880
1,000	10×12.5	460	10×16	550	10×20	640	12.5×20	770	12.5×25	920	16×25	1,080	16×31.5	1,210		
2,200	12.5×20	810	12.5×20	860	12.5×25	1,000	16×25	1,170	16×31.5	1,340	18×35.5	1,530				
3,300	12.5×20	960	12.5×25	1,100	16×25	1,300	16×31.5	1,460	18×35.5	1,650						
4,700	16×25	1,330	16×25	1,400	16×31.5	1,600	18×35.5	1,780	18×40	1,900						
6,800	16×25	1,500	16×31.5	1,690	18×35.5	1,900	18×40	1,950								
10,000	16×31.5	1,765	18×35.5	1,950	18×40	2,060										
15,000	18×35.5	2,075														

		Non solvent-proof									
μF \ V_{dc}		160		200		250		350		400	
0.47		6.3×11	9	6.3×11	9	6.3×11	9	8×11.5	10		
1.0		6.3×11	12	6.3×11	12	6.3×11	12	10×12.5	18	10×12.5	18
2.2		6.3×11	19	6.3×11	19	8×11.5	21	10×16	30	10×16	30
3.3		8×11.5	26	8×11.5	26	10×12.5	30	10×16	37	10×20	40
4.7		8×11.5	31	10×12.5	36	10×12.5	36	10×20	48	10×25	52
10		10×16	59	10×16	59	10×20	64	12.5×20	79	12.5×25	79
22		10×20	95	10×20	95	12.5×25	110	16×20	130	16×25	145
33		12.5×20	125	12.5×25	140	12.5×25	140	16×25	175	16×31.5	185
47		12.5×25	165	12.5×25	165	16×25	180	16×35.5	230	18×31.5	230
100		16×25	270	16×31.5	285	18×35.5	310	18×40	330		
220		18×35.5	450	18×40	470						

◆MAXIMUM ESR

		(Ω) at 20°C, 120Hz									
μF \ V_{dc}		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	1.33	3.32	3.98
220	1.66	1.43	1.21	1.06	0.905	0.754	0.679	0.603	0.603	1.51	
330	1.11	0.955	0.804	0.704	0.603	0.503	0.452	0.402	0.402		
470	0.776	0.671	0.565	0.494	0.423	0.353	0.318	0.282	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										