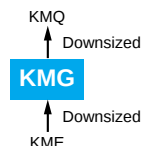


KMG Series

- Downsized from KME series
- Solvent-proof type except 350 to 450V_{dc}
(see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

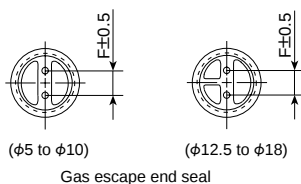
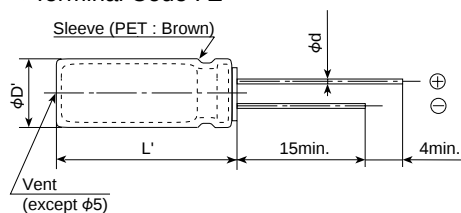


◆ SPECIFICATIONS

Items	Characteristics												
Category													
Temperature Range	-55 to +105°C(6.3 to 100V _{dc}) -40 to +105°C(160 to 400V _{dc}) -25 to +105°C(450V _{dc})												
Rated Voltage Range	6.3 to 450V _{dc}												
Capacitance Tolerance	±20% (M) (at 20°C, 120Hz)												
Leakage Current	6.3 to 100V _{dc}						160 to 450V _{dc}						
	I=0.03CV or 4μA, whichever is greater.						CV \ Time		After 1minute		After 5minutes		
							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 after 1 minute)						(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	450V	
	tanδ (Max.)	0.34	0.24	0.20	0.16	0.14	0.12	0.10	0.08	0.20	0.24	0.24	
	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 (V _{dc})	6.3V	10V	16V	25V	35V	50V	63V	100V	160 to 250V	350 to 400V	450V	
	Z(-25°C)/Z(+20°C)	5	4	3	2	2	2	2	2	3	6	6	
	Z(-40°C)/Z(+20°C)	12	10	8	5	4	3	3	3	4	6	—	
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 (2,000 hours to meet the following two conditions 1) : 160V _{dc} and larger, 2) : φ12.5 and larger) 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 _{dc}						160 to 450V _{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					

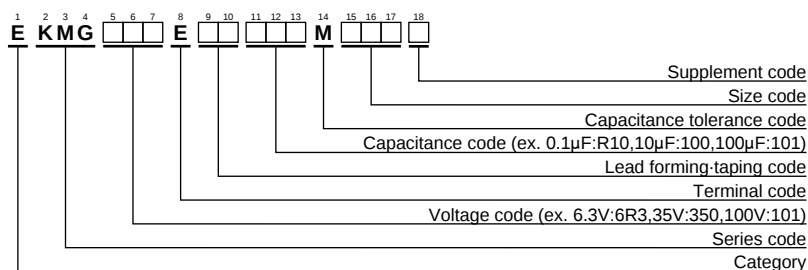
◆ DIMENSIONS [mm]

- 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
$\phi D'$	$\phi D + 0.5 \max.$						
L'	L + 1.5 \max						

◆PART NUMBERING SYSTEM



Please refer to "A guide to global code (radial lead type)"

◆STANDARD RATINGS

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (mA rms/ 105°C, 120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (mA rms/ 105°C, 120Hz)	Part No.
6.3	33	5×11	0.34	54	EKMG6R3E□□330ME11D	35	3,300	16×35.5	0.18	1,610	EKMG350E□□332MLP1S
	47	5×11	0.34	64	EKMG6R3E□□470ME11D		4,700	18×35.5	0.20	1,910	EKMG350E□□472MMP1S
	100	5×11	0.34	94	EKMG6R3E□□101ME11D	50	0.10	5×11	0.12	1.3	EKMG500E□□R10ME11D
	220	5×11	0.34	140	EKMG6R3E□□221ME11D		0.22	5×11	0.12	2.9	EKMG500E□□R22ME11D
	330	6.3×11	0.34	190	EKMG6R3E□□331MF11D		0.33	5×11	0.12	4.3	EKMG500E□□R33ME11D
	470	6.3×11	0.34	230	EKMG6R3E□□471MF11D		0.47	5×11	0.12	6.2	EKMG500E□□R47ME11D
	1,000	8×11.5	0.34	380	EKMG6R3E□□102MHB5D		1.0	5×11	0.12	13	EKMG500E□□1R0ME11D
	2,200	10×20	0.36	710	EKMG6R3E□□222MJ20S		2.2	5×11	0.12	20	EKMG500E□□2R2ME11D
	3,300	10×20	0.38	840	EKMG6R3E□□332MJ20S		3.3	5×11	0.12	25	EKMG500E□□3R3ME11D
	4,700	12.5×20	0.40	1,090	EKMG6R3E□□472MK20S		4.7	5×11	0.12	30	EKMG500E□□4R7ME11D
	6,800	12.5×25	0.44	1,350	EKMG6R3E□□682MK25S		10	5×11	0.12	40	EKMG500E□□100ME11D
	10,000	16×25	0.52	1,650	EKMG6R3E□□103ML25S		22	5×11	0.12	65	EKMG500E□□220ME11D
	15,000	16×35.5	0.62	2,010	EKMG6R3E□□153MLP1S		33	5×11	0.12	90	EKMG500E□□331MJ16S
	2,200	18×40	0.76	2,350	EKMG6R3E□□223MM40S		47	6.3×11	0.12	110	EKMG500E□□470MF11D
							100	8×11.5	0.12	180	EKMG500E□□101MHB5D
10	22	5×11	0.24	46	EKMG100E□□220ME11D	63	220	10×12.5	0.12	300	EKMG500E□□221MJC5S
	33	5×11	0.24	57	EKMG100E□□330ME11D		330	10×16	0.12	410	EKMG500E□□331MJ16S
	47	5×11	0.24	68	EKMG100E□□470ME11D		470	10×20	0.12	530	EKMG500E□□471MJ20S
	100	5×11	0.24	100	EKMG100E□□101ME11D		1,000	12.5×25	0.12	950	EKMG500E□□102MK25S
	220	6.3×11	0.24	170	EKMG100E□□221MF11D		2,200	16×35.5	0.14	1,470	EKMG500E□□222MLP1S
	330	6.3×11	0.24	200	EKMG100E□□331MF11D		3,300	18×35.5	0.16	1,770	EKMG500E□□332MMP1S
	470	8×11.5	0.24	250	EKMG100E□□471MHB5D	100	10	5×11	0.10	46	EKMG630E□□100ME11D
	1,000	10×12.5	0.24	460	EKMG100E□□102MJC5S		22	5×11	0.10	71	EKMG630E□□220ME11D
	2,200	10×20	0.26	760	EKMG100E□□222MJ20S		33	6.3×11	0.10	100	EKMG630E□□330MF11D
	3,300	12.5×20	0.28	1,000	EKMG100E□□332MK20S		47	6.3×11	0.10	120	EKMG630E□□470MF11D
	4,700	12.5×25	0.30	1,260	EKMG100E□□472MK25S		100	10×12.5	0.10	215	EKMG630E□□101MJC5S
	6,800	16×25	0.34	1,570	EKMG100E□□682ML25S		220	10×16	0.10	335	EKMG630E□□221MJ16S
	10,000	16×35.5	0.42	1,890	EKMG100E□□103MLP1S		330	10×20	0.10	510	EKMG630E□□331MJ20S
	15,000	18×35.5	0.52	2,180	EKMG100E□□153MMP1S		470	12.5×20	0.10	640	EKMG630E□□471MK20S
16	10	5×11	0.20	34	EKMG160E□□100ME11D		1,000	16×25	0.10	930	EKMG630E□□102ML25S
	22	5×11	0.20	51	EKMG160E□□220ME11D	160	0.10	5×11	0.08	1.5	EKMG101E□□R10ME11D
	33	5×11	0.20	63	EKMG160E□□330ME11D		0.22	5×11	0.08	3.4	EKMG101E□□R22ME11D
	47	5×11	0.20	75	EKMG160E□□470ME11D		0.33	5×11	0.08	5.0	EKMG101E□□R33ME11D
	100	5×11	0.20	110	EKMG160E□□101ME11D		0.47	5×11	0.08	7.1	EKMG101E□□R47ME11D
	220	6.3×11	0.20	180	EKMG160E□□221MF11D		1.0	5×11	0.08	15	EKMG101E□□1R0ME11D
	330	8×11.5	0.20	260	EKMG160E□□331MHB5D		2.2	5×11	0.08	21	EKMG101E□□2R2ME11D
	470	8×11.5	0.20	310	EKMG160E□□471MHB5D		3.3	5×11	0.08	29	EKMG101E□□3R3ME11D
	1,000	10×16	0.20	560	EKMG160E□□102MJ16S		4.7	5×11	0.08	32	EKMG101E□□4R7ME11D
	2,200	12.5×20	0.22	920	EKMG160E□□222MK20S		10	6.3×11	0.08	54	EKMG101E□□100MF11D
	3,300	12.5×25	0.24	1,170	EKMG160E□□332MK25S		22	8×11.5	0.08	93	EKMG101E□□220MHB5D
	4,700	16×25	0.26	1,480	EKMG160E□□472ML25S		33	8×11.5	0.08	130	EKMG101E□□330MHB5D
	6,800	16×31.5	0.30	1,780	EKMG160E□□682MLN3S		47	10×12.5	0.08	165	EKMG101E□□471MJC5S
	10,000	18×35.5	0.38	2,060	EKMG160E□□103MMP1S		100	10×20	0.08	265	EKMG101E□□101MJ20S
							220	12.5×25	0.08	440	EKMG101E□□221MK25S
25	4.7	5×11	0.16	25	EKMG250E□□4R7ME11D	200	330	16×25	0.08	540	EKMG101E□□331ML25S
	10	5×11	0.16	36	EKMG250E□□100ME11D		470	16×31.5	0.08	715	EKMG101E□□471MLN3S
	22	5×11	0.16	54	EKMG250E□□220ME11D		1,000	18×40	0.08	985	EKMG101E□□102MM40S
	33	5×11	0.16	67	EKMG250E□□330ME11D	250	3.3	6.3×11	0.20	28	EKMG201E□□3R3MF11D
	47	5×11	0.16	80	EKMG250E□□470ME11D		4.7	8×11.5	0.20	39	EKMG201E□□4R7MHB5D
	100	6.3×11	0.16	130	EKMG250E□□101MF11D		10	10×16	0.20	74	EKMG201E□□100MJ16S
	220	8×11.5	0.16	230	EKMG250E□□221MHB5D		22	10×20	0.20	120	EKMG201E□□220MJ20S
	330	8×11.5	0.16	310	EKMG250E□□331MHB5D		33	10×20	0.20	145	EKMG201E□□330MJ20S
	470	10×12.5	0.16	380	EKMG250E□□471MJC5S		47	12.5×20	0.20	195	EKMG201E□□470MK20S
	1,000	10×20	0.16	680	EKMG250E□□102MJ20S		100	16×25	0.20	335	EKMG201E□□101ML25S
	2,200	12.5×25	0.18	1,090	EKMG250E□□222MK25S		220	16×31.5	0.20	540	EKMG201E□□221MLN3S
	3,300	16×25	0.20	1,400	EKMG250E□□332ML25S		330	18×35.5	0.20	705	EKMG201E□□331MMP1S
	4,700	16×31.5	0.22	1,710	EKMG250E□□472MLN3S	250	2.2	6.3×11	0.20	23	EKMG251E□□2R2MF11D
	6,800	18×35.5	0.26	2,040	EKMG250E□□682MMP1S		3.3	8×11.5	0.20	32	EKMG251E□□3R3MHB5D
							4.7	8×11.5	0.20	39	EKMG251E□□4R7MHB5D
35	4.7	5×11	0.14	28	EKMG350E□□4R7ME11D	200	10	10×16	0.20	74	EKMG201E□□100MJ16S
	10	5×11	0.14	41	EKMG350E□□100ME11D		22	10×20	0.20	120	EKMG201E□□220MJ20S
	22	5×11	0.14	61	EKMG350E□□220ME11D		33	12.5×20	0.20	160	EKMG201E□□330MK20S
	33	5×11	0.14	75	EKMG350E□□330ME11D		47	12.5×20	0.20	195	EKMG201E□□470MK20S
	47	5×11	0.14	90	EKMG350E□□470ME11D		100	16×25	0.20	335	EKMG201E□□101ML25S
	100	6.3×11	0.14	150	EKMG350E□□101MF11D		220	18×35.5	0.20	575	EKMG201E□□221MMP1S
	220	8×11.5	0.14	270	EKMG350E□□221MHB5D	250	2.2	6.3×11	0.20	23	EKMG251E□□2R2MF11D
	330	10×12.5	0.14	350	EKMG350E□□331MJC5S		3.3	8×11.5	0.20	32	EKMG251E□□3R3MHB5D
	470	10×16	0.14	460	EKMG350E□□471MJ16S		4.7	8×11.5	0.20	39	EKMG251E□□4R7MHB5D
	1,000	12.5×20	0.14	810	EKMG350E□□102MK20S						
	2,200	16×25	0.16	1,260	EKMG350E□□222ML25S						

□□ : Lead forming / Taping code

◆STANDARD RATINGS

□ is non solvent-proof.

WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (mA _{rms} /105°C,120Hz)	Part No.	WV (Vdc)	Cap (μF)	Case size φD×L(mm)	tanδ	Rated ripple current (mA _{rms} /105°C,120Hz)	Part No.
250	10	10×16	0.20	74	EKMG251E□□100MJ16S	400	1.0	6.3×11	0.24	15	EKMG401E□□1R0MF11D
	22	12.5×20	0.20	130	EKMG251E□□220MK20S		2.2	8×11.5	0.24	26	EKMG401E□□2R2MHB5D
	33	12.5×20	0.20	160	EKMG251E□□330MK20S		3.3	10×12.5	0.24	38	EKMG401E□□3R3MJC5S
	47	12.5×25	0.20	210	EKMG251E□□470MK25S		4.7	10×16	0.24	50	EKMG401E□□4R7MJ16S
	100	16×31.5	0.20	365	EKMG251E□□101MLN3S		10	10×20	0.24	80	EKMG401E□□100MJ20S
	220	18×40	0.20	585	EKMG251E□□221MM40S		22	12.5×25	0.24	145	EKMG401E□□220MK25S
350	0.47	6.3×11	0.24	11	EKMG351E□□R47MF11D		33	16×25	0.24	195	EKMG401E□□330ML25S
	1.0	6.3×11	0.24	15	EKMG351E□□1R0MF11D		47	16×31.5	0.24	250	EKMG401E□□470MLN3S
	2.2	8×11.5	0.24	26	EKMG351E□□2R2MHB5D		100	16×40	0.24	350	EKMG401E□□101ML40S
	3.3	10×12.5	0.24	38	EKMG351E□□3R3MJC5S	450	0.47	10×12.5	0.24	9.0	EKMG451E□□R47MJC5S
	4.7	10×16	0.24	50	EKMG351E□□4R7MJ16S		1.0	10×12.5	0.24	13	EKMG451E□□1R0MJC5S
	10	10×20	0.24	80	EKMG351E□□100MJ20S		2.2	10×12.5	0.24	23	EKMG451E□□2R2MJC5S
	22	12.5×20	0.24	130	EKMG351E□□220MK20S		3.3	10×16	0.24	31	EKMG451E□□3R3MJ16S
	33	16×25	0.24	195	EKMG351E□□330ML25S		4.7	10×20	0.24	40	EKMG451E□□4R7MJ20S
	47	16×25	0.24	230	EKMG351E□□470ML25S		10	12.5×20	0.24	65	EKMG451E□□100MK20S
	100	18×31.5	0.24	375	EKMG351E□□101MMN3S		22	16×25	0.24	115	EKMG451E□□220ML25S
							33	16×31.5	0.24	155	EKMG451E□□330MLN3S
							47	16×35.5	0.24	185	EKMG451E□□470MLP1S

□□ : Lead forming / Taping code

◆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

The endurance of capacitors is shorted 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.