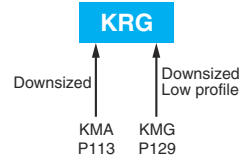


# KRG Series

- Low profile :  $\phi 4 \times 7\text{mm}$  to  $\phi 18 \times 25\text{mm}$
- Endurance : 1,000 hours at 105°C
- Solvent resistant type (see PRECAUTIONS AND GUIDELINES)
- RoHS Compliant

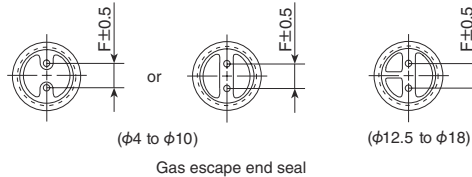
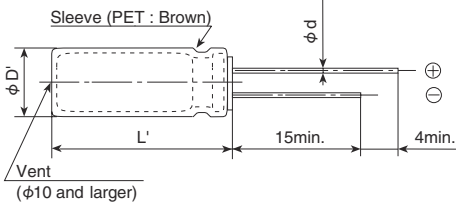


## ◆ SPECIFICATIONS

Items	Characteristics						
<b>Category</b>	-55 to +105°C						
<b>Temperature Range</b>	-55 to +105°C						
<b>Rated Voltage Range</b>	6.3 to 50V <sub>dc</sub>						
<b>Capacitance Tolerance</b>	±20% (M) (at 20°C, 120Hz)						
<b>Leakage Current</b>	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)						
<b>Dissipation Factor (tan δ)</b>	Rated voltage (V <sub>dc</sub> )	6.3V	10V	16V	25V	35V	50V
	tan δ (Max.)	0.28	0.24	0.20	0.16	0.14	0.12
	When nominal capacitance exceeds 1,000μF, add 0.03 to the value above for each 1,000μF increase. (at 20°C, 120Hz)						
<b>Low Temperature Characteristics (Max. Impedance Ratio)</b>	Rated voltage (V <sub>dc</sub> )	6.3V	10V	16V	25V	35V	50V
	Z(-25°C)/Z(+20°C)	5	4	3	2	2	2
	Z(-40°C)/Z(+20°C)	10	8	6	4	3	3
(at 120Hz)							
<b>Endurance</b>	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 105°C.						
	Rated voltage	6.3 to 16V <sub>dc</sub>			25 to 50V <sub>dc</sub>		
	Capacitance change	≤ ±25% of the initial value			≤ ±20% of the initial value		
	D.F. (tan δ)	≤ 200% of the initial specified value			≤ 200% of the initial specified value		
	Leakage current	≤ The initial specified value			≤ The initial specified value		
<b>Shelf Life</b>	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 500 hours at 105°C without voltage applied. Before the measurement, the capacitor shall be preconditioned by applying voltage according to Item 4.1 of JIS C 5101-4.						
	Rated voltage	6.3 to 16V <sub>dc</sub>			25 to 50V <sub>dc</sub>		
	Capacitance change	≤ ±25% of the initial value			≤ ±20% of the initial value		
	D.F. (tan δ)	≤ 200% of the initial specified value			≤ 200% of the initial specified value		
	Leakage current	≤ The initial specified value			≤ The initial specified value		

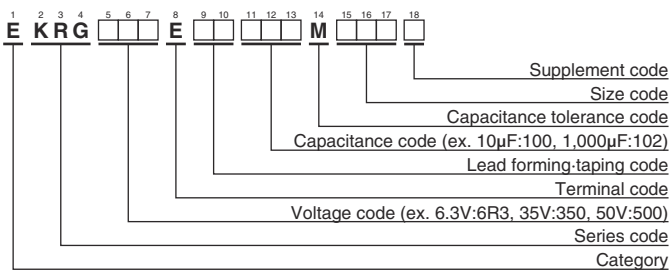
## ◆ DIMENSIONS [mm]

● Terminal Code : E



φD	4	5	6.3	8	10 & 12.5	16 & 18
7L	0.45	0.45	0.45	-	-	-
φd	≥9L	-	0.5	0.5	0.6	0.8
F	1.5	2.0	2.5	3.5	5.0	7.5
φD'	φD+0.5max.					
L'	L+1.5max. (7L : L+1.0max.)					

## ◆ PART NUMBERING SYSTEM



Please refer to "Product code guide (radial lead type)"

KRG Series

◆STANDARD RATINGS

WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (mA <sub>rms</sub> /105°C, 120Hz)	Part No.	WV (V <sub>dc</sub> )	Cap (μF)	Case size φD×L(mm)	tan δ	Rated ripple current (mA <sub>rms</sub> /105°C, 120Hz)	Part No.
6.3	47	5 × 7	0.28	50	EKRG6R3E□□470ME07D	25	470	10 × 12.5	0.16	370	EKRG250E□□471MJC5S
	330	6.3 × 9	0.28	175	EKRG6R3E□□331MF09D		1,000	12.5 × 15	0.16	590	EKRG250E□□102MK15S
	1,000	10 × 9	0.28	365	EKRG6R3E□□102MJ09S		2,200	18 × 15	0.19	970	EKRG250E□□222MM15S
	4,700	16 × 15	0.37	1,010	EKRG6R3E□□472ML15S		3,300	18 × 20	0.22	1,220	EKRG250E□□332MM20S
	6,800	18 × 15	0.43	1,190	EKRG6R3E□□682MM15S		4,700	18 × 25	0.25	1,470	EKRG250E□□472MM25S
	10,000	18 × 20	0.55	1,440	EKRG6R3E□□103MM20S		35	10	5 × 7	0.14	36
10	22	4 × 7	0.24	35	EKRG100E□□220MD07D	22		6.3 × 7	0.14	57	EKRG350E□□220MF07D
	100	5 × 9	0.24	93	EKRG100E□□101ME09D	33		5 × 9	0.14	67	EKRG350E□□330ME09D
	100	6.3 × 7	0.24	80	EKRG100E□□101MF07D	33		6.3 × 7	0.14	64	EKRG350E□□330MF07D
	220	6.3 × 9	0.24	154	EKRG100E□□221MF09D	100		8 × 9	0.14	155	EKRG350E□□101MH09D
	470	8 × 9	0.24	272	EKRG100E□□471MH09D	220		10 × 9	0.14	235	EKRG350E□□221MJ09S
	1,000	10 × 12.5	0.24	445	EKRG100E□□102MJC5S	330		10 × 12.5	0.14	340	EKRG350E□□331MJC5S
	2,200	12.5 × 15	0.27	690	EKRG100E□□222MK15S	470		12.5 × 13	0.14	415	EKRG350E□□471MK13S
	3,300	16 × 15	0.30	940	EKRG100E□□332ML15S	1,000		16 × 15	0.14	720	EKRG350E□□102ML15S
	4,700	18 × 15	0.33	1,120	EKRG100E□□472MM15S	2,200		18 × 20	0.17	1,110	EKRG350E□□222MM20S
	6,800	18 × 20	0.39	1,330	EKRG100E□□682MM20S	50		1.0	4 × 7	0.12	10
10,000	18 × 25	0.51	1,700	EKRG100E□□103MM25S	1.0			5 × 9	0.12	12	EKRG500E□□1R0ME09D
16	33	5 × 7	0.20	53	EKRG160E□□330ME07D		2.2	4 × 7	0.12	15	EKRG500E□□2R2MD07D
	47	6.3 × 7	0.20	68	EKRG160E□□470MF07D		2.2	5 × 9	0.12	18	EKRG500E□□2R2ME09D
	100	6.3 × 7	0.20	97	EKRG160E□□101MF07D		3.3	4 × 7	0.12	18	EKRG500E□□3R3MD07D
	220	8 × 9	0.20	205	EKRG160E□□221MH09D		3.3	5 × 9	0.12	22	EKRG500E□□3R3ME09D
	330	8 × 9	0.20	251	EKRG160E□□331MH09D		4.7	4 × 7	0.12	25	EKRG500E□□4R7MD07D
	470	10 × 9	0.20	290	EKRG160E□□471MJ09S		4.7	5 × 9	0.12	27	EKRG500E□□4R7ME09D
	1,000	12.5 × 13	0.20	515	EKRG160E□□102MK13S		10	5 × 9	0.12	46	EKRG500E□□100ME09D
	2,200	16 × 15	0.23	830	EKRG160E□□222ML15S		10	6.3 × 7	0.12	44	EKRG500E□□100MF07D
	3,300	18 × 15	0.26	1,050	EKRG160E□□332MM15S		22	5 × 9	0.12	61	EKRG500E□□220ME09D
	4,700	18 × 20	0.29	1,260	EKRG160E□□472MM20S		22	6.3 × 7	0.12	57	EKRG500E□□220MF07D
6,800	18 × 25	0.35	1,560	EKRG160E□□682MM25S	33		6.3 × 9	0.12	80	EKRG500E□□330MF09D	
25	10	4 × 7	0.16	30	EKRG250E□□100MD07D		47	6.3 × 9	0.12	95	EKRG500E□□470MF09D
	22	5 × 7	0.16	46	EKRG250E□□220ME07D		100	10 × 9	0.12	170	EKRG500E□□101MJ09S
	33	6.3 × 7	0.16	63	EKRG250E□□330MF07D		220	10 × 12.5	0.12	290	EKRG500E□□221MJC5S
	47	5 × 9	0.16	75	EKRG250E□□470ME09D		330	12.5 × 13	0.12	370	EKRG500E□□331MK13S
	47	6.3 × 7	0.16	71	EKRG250E□□470MF07D		470	16 × 15	0.12	535	EKRG500E□□471ML15S
	100	6.3 × 9	0.16	121	EKRG250E□□101MF09D	1,000	18 × 20	0.12	830	EKRG500E□□102MM20S	
330	10 × 9	0.16	270	EKRG250E□□331MJ09S							

□ : Enter the appropriate lead forming or taping code.

◆RATED RIPPLE CURRENT MULTIPLIERS

●Frequency Multipliers

Capacitance(μF)	Frequency(Hz)					
	50	120	300	1k	10k	100k
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