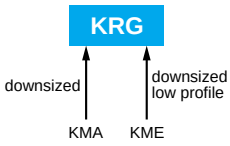
KRG Series

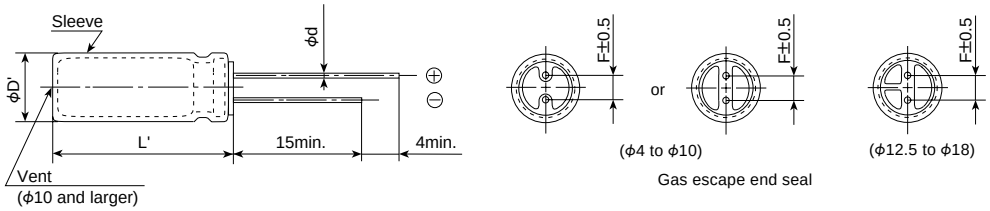
- Low profile : φ4×7mm to φ18×25mm
- Endurance : 105℃ 1000 hours
- Solvent-proof type (see PRECAUTIONS AND GUIDELINES)



◆SPECIFICATIONS

Items	Characteristics							
Category Temperature Range	−55 to +105℃							
Rated Voltage Range	6.3 to 50Vdc							
Capacitance Tolerance	±20% (M)							(at 20℃, 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℃ after 2 minutes)
Dissipation Factor (tanδ)	Rated voltage (Vdc)	6.3V	10V	16V	25V	35V	50V	
	tanδ (Max.)	0.28	0.24	0.20	0.16	0.14	0.12	
	When nominal capacitance exceeds 1000μF, add 0.03 to the value above for each 1000μF increase.							(at 20℃, 120Hz)
Low Temperature Characteristics (Max. Impedance Ratio)	Rated voltage (Vdc)	6.3V	10V	16V	25V	35V	50V	
	Z(−25℃)/Z(+20℃)	5	4	3	2	2	2	
	Z(−40℃)/Z(+20℃)	10	8	6	4	3	3	(at 120Hz)
Endurance	The following specifications shall be satisfied when the capacitors are restored to 20℃ after the rated voltage is applied for 1000 hours at 105℃.							
	Rated voltage	6.3 to 16Vdc				25 to 50Vdc		
	Capacitance change	≦±25% 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				≦The initial specified value		
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20℃ after exposing them for 500 hours at 105℃ without voltage applied.							
	Rated voltage	6.3 to 16Vdc				25 to 50Vdc		
	Capacitance change	≦±25% 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				≦The initial specified value		

◆DIMENSIONS (Radial Lead Type=VB) [mm]



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

◆PART NUMBERING SYSTEM

KRG 6.3 VB 1000 M J09

- KRG — Series name
- 6.3 — Rated voltage in volts
- VB — Radial lead type
- 1000 — Nominal cap code
- M — Cap tolerance (±20%)
- J09 — Case code

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

◆CASE CODE

φD (mm) \ L (mm)	7	9	12.5	13	15	20	25
4	D07						
5	E07	E09					
6.3	F07	F09					
7	G07						
8		H09					
10		J09	J12				
12.5				K13	K15		
16					L15		
18					M15	M20	M25

KRG Series 9 to 25mm-length

◆STANDARD RATINGS

μF \ Vdc	6.3		10		16		25		35		50	
1.0											5×9	12
2.2											5×9	18
3.3											5×9	22
4.7											5×9	27
10	Case size φD×L (mm)										5×9	46
22	Rated ripple current (mArms) at 105℃, 120Hz										5×9	61
33							→		5×9	67	6.3×9	80
47					→		5×9	75	→		6.3×9	95
100	→		5×9	93	→		6.3×9	121	8×9	155	10×9	170
220	→		6.3×9	154	8×9	205	→		10×9	235	10×12.5	290
330	6.3×9	175	→		8×9	251	10×9	270	10×12.5	340	12.5×13	370
470	→		8×9	272	10×9	290	10×12.5	370	12.5×13	415	16×15	535
1,000	10×9	365	10×12.5	445	12.5×13	515	12.5×15	590	16×15	720	18×20	830
2,200	→		12.5×15	690	16×15	830	18×15	970	18×20	1,110		
3,300	→		16×15	940	18×15	1,050	18×20	1,220				
4,700	16×15	1,010	18×15	1,120	18×20	1,260	18×25	1,470				
6,800	18×15	1,190	18×20	1,330	18×25	1,560						
10,000	18×20	1,440	18×25	1,700								

Note : → Use next higher voltage part.

KRG Series 7mm-length

◆STANDARD RATINGS

μF \ Vdc	6.3		10		16		25		35		50	
0.1											4×7	1.3
0.22											4×7	2.9
0.33											4×7	3.5
0.47											4×7	5
1.0	Case size φD×L (mm)										4×7	10
2.2	Rated ripple current (mArms) at 105℃, 120Hz										4×7	15
3.3									→		4×7	18
4.7							→		→		4×7	25
10					→		4×7	30	5×7	36	6.3×7	44
22	→		4×7	35	→		5×7	46	6.3×7	57	6.3×7	57
33	→		→		5×7	53	6.3×7	63	6.3×7	64		
47	5×7	50	→		6.3×7	68	6.3×7	71				
100	→		6.3×7	80	6.3×7	97						

Note : → Use next higher voltage part.

◆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