



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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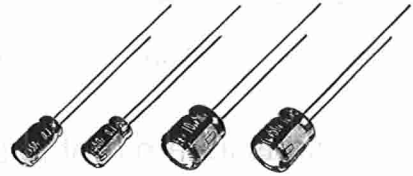
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Series KG

7mm height miniature size/+105°C



Features

- Low profile 7mm height for $\phi 4 \sim \phi 8$ mm
- Long life: 1000 hours at +105°C
- Various lead taping configurations for high density insertion

Specifications

Item	Performance Characteristics						
Operating Temperature Range	-55 to +105°C						
Rated Working Voltage Range	6.3 to 50V DC						
Nominal Capacitance Range	0.1 to 220 μ F						
Capacitance Tolerance	$\pm 20\%$ (120Hz, +20°C)						
Leakage Current	I \leq 0.01CV or 3 [μ A] Whichever is greater measured after 2 minutes application of rated working voltage at +20°C.						
tan δ (120Hz, +20°C)	Working voltage [V]	6.3	10	16	25	35	50
	tan δ max.	0.22	0.19	0.16	0.14	0.12	0.10
Characteristics at Low Temperature	Impedance ratio max. at 120Hz						
	Working voltage [V]	6.3	10	16	25	35	50
	-25°C/+20°C	3	2	2	2	2	2
	-40°C/+20°C	6	5	3	3	3	3
	-55°C/+20°C	8	6	4	4	4	4
Impedance	Refer to standard products table (100kHz, +20°C)						
Endurance	Test conditions Duration : 1000 hours Ambient temperature : +105°C Applied voltage : Rated DC working voltage Post test requirements at +20°C Leakage current : \leq Initial specified value Capacitance change : $\pm 20\%$ of initial measured value tan δ : $\leq 200\%$ of initial specified value						
Shelf Life	Test conditions Duration : 1000 hours Ambient temperature : +105°C Applied voltage : (None)			Post test requirements at +20°C Same limits for "Endurance".			

Explanation of Part Numbers



Common code



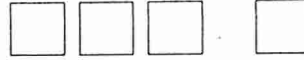
Shape



W.V. code



Series code



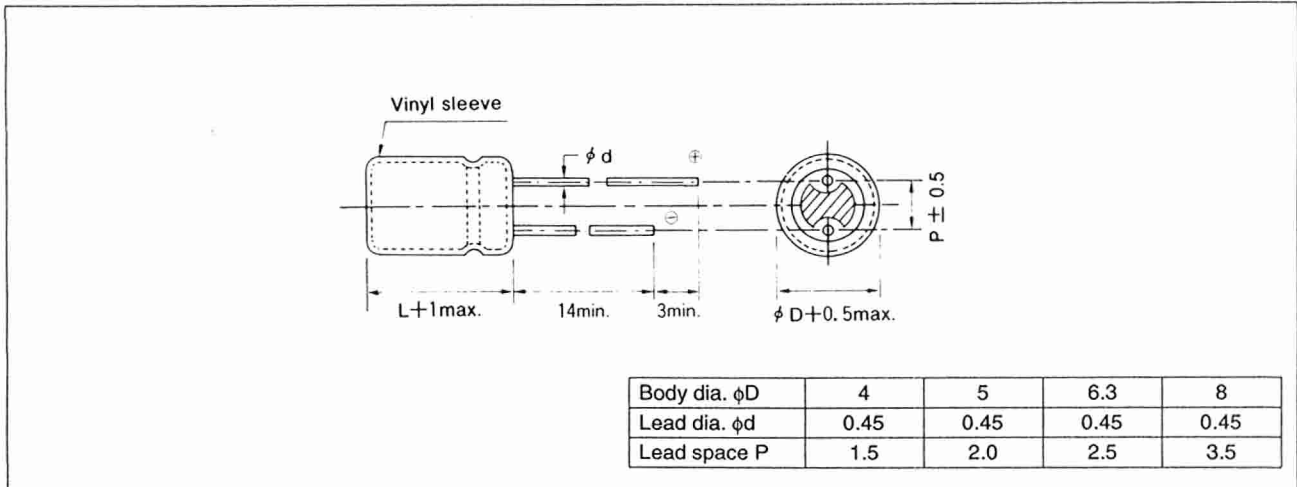
Capacitance code



Suffix

(See page:17 ~ 20)

Dimensions in mm (not to scale)



Case Size

$\phi D \times L$ [mm]

Cap. [μF]	W.V. [V.DC]	6.3 (0J)	10 (1A)	16 (1C)	25 (1E)	35 (1V)	50 (1H)
0.1 (0R1)							4 × 7
0.15 (R15)							4 × 7
0.22 (R22)							4 × 7
0.33 (R33)							4 × 7
0.47 (R47)							4 × 7
0.68 (R68)							4 × 7
1 (010)							4 × 7
1.5 (1R5)							4 × 7
2.2 (2R2)							4 × 7
3.3 (3R3)							4 × 7
4.7 (4R7)						4 × 7	4 × 7
6.8 (6R8)				4 × 7	4 × 7	4 × 7	5 × 7
10 (100)				4 × 7	4 × 7	5 × 7	6.3 × 7
15 (150)				4 × 7	5 × 7	6.3 × 7	6.3 × 7
22 (220)		4 × 7	4 × 7	5 × 7	5 × 7	6.3 × 7	8 × 7
33 (330)		5 × 7	5 × 7	6.3 × 7	6.3 × 7	8 × 7	8 × 7
47 (470)		5 × 7	6.3 × 7	6.3 × 7	8 × 7	8 × 7	
68 (680)		6.3 × 7	6.3 × 7	8 × 7	8 × 7		
100 (101)		6.3 × 7	6.3 × 7	8 × 7			
220 (221)		8 × 7					

() indicates W.V. and capacitance code.

Standard Products

W.V. [V.DC]	Cap. [μF]	Part No.	D.C.L. (+20°C/2 min) [μA] max.	tan δ (120Hz/+20°C) max.	Impedance (100kHz/+20°C) [Ω] max.	Ripple current (100kHz/+105°C) [mA] rms max.	Dimensions [mm]	
							φD	L
6.3	22	ECEA0JKG220	3.0	0.22	10	47	4	7
	33	ECEA0JKG330	3.0	0.22	5	70	5	7
	47	ECEA0JKG470	3.0	0.22	5	70	5	7
	68	ECEA0JKG680	4.2	0.22	2	121	6.3	7
	100	ECEA0JKG101	6.3	0.22	2	121	6.3	7
	220	ECEA0JKG221	13.8	0.22	1.2	190	8	7
10	22	ECEA1AKG220	3.0	0.19	10	47	4	7
	33	ECEA1AKG330	3.3	0.19	5	70	5	7
	47	ECEA1AKG470	4.7	0.19	2	121	6.3	7
	68	ECEA1AKG680	6.8	0.19	2	121	6.3	7
	100	ECEA1AKG101	10.0	0.19	2	121	6.3	7
16	6.8	ECEA1CKG6R8	3.0	0.16	10	47	4	7
	10	ECEA1CKG100	3.0	0.16	10	47	4	7
	15	ECEA1CKG150	3.0	0.16	10	47	4	7
	22	ECEA1CKG220	3.5	0.16	5	70	5	7
	33	ECEA1CKG330	5.2	0.16	2	121	6.3	7
	47	ECEA1CKG470	7.5	0.16	2	121	6.3	7
	68	ECEA1CKG680	10.8	0.16	1.2	190	8	7
	100	ECEA1CKG101	16.0	0.16	1.2	190	8	7
25	6.8	ECEA1EKG6R8	3.0	0.14	10	47	4	7
	10	ECEA1EKG100	3.0	0.14	10	47	4	7
	15	ECEA1EKG150	3.7	0.14	5	70	5	7
	22	ECEA1EKG220	5.5	0.14	5	70	5	7
	33	ECEA1EKG330	8.2	0.14	2	121	6.3	7
	47	ECEA1EKG470	11.7	0.14	1.2	190	8	7
	68	ECEA1EKG680	17.0	0.14	1.2	190	8	7
35	4.7	ECEA1VKG4R7	3.0	0.12	10	47	4	7
	6.8	ECEA1VKG6R8	3.0	0.12	10	47	4	7
	10	ECEA1VKG100	3.5	0.12	5	70	5	7
	15	ECEA1VKG150	5.2	0.12	2	121	6.3	7
	22	ECEA1VKG220	7.7	0.12	2	121	6.3	7
	33	ECEA1VKG330	11.5	0.12	1.2	190	8	7
	47	ECEA1VKG470	16.4	0.12	1.2	190	8	7
50	0.1	ECEA1HKG0R1	3.0	0.10	22	1.7	4	7
	0.15	ECEA1HKGR15	3.0	0.10	16	2.5	4	7
	0.22	ECEA1HKGR22	3.0	0.10	12	3.5	4	7
	0.33	ECEA1HKGR33	3.0	0.10	10	5.4	4	7
	0.47	ECEA1HKGR47	3.0	0.10	10	7.6	4	7
	0.68	ECEA1HKGR68	3.0	0.10	10	10	4	7
	1.0	ECEA1HKG010	3.0	0.10	10	16	4	7
	1.5	ECEA1HKG1R5	3.0	0.10	10	24	4	7
	2.2	ECEA1HKG2R2	3.0	0.10	10	36	4	7
	3.3	ECEA1HKG3R3	3.0	0.10	10	47	4	7
	4.7	ECEA1HKG4R7	3.0	0.10	10	47	4	7
	6.8	ECEA1HKG6R8	3.4	0.10	5	70	5	7
	10	ECEA1HKG100	5.0	0.10	2	121	6.3	7
	15	ECEA1HKG150	7.5	0.10	2	121	6.3	7
	22	ECEA1HKG220	11.0	0.10	1.2	190	8	7
33	ECEA1HKG330	16.5	0.10	1.2	190	8	7	