

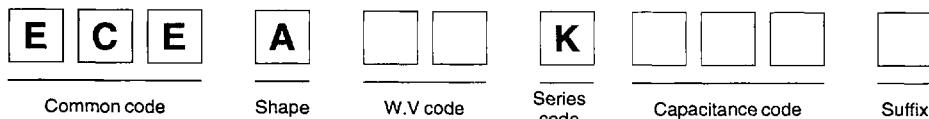
## Series K

*K series are not recommended for new design  
Select KA Series as alternatives.*

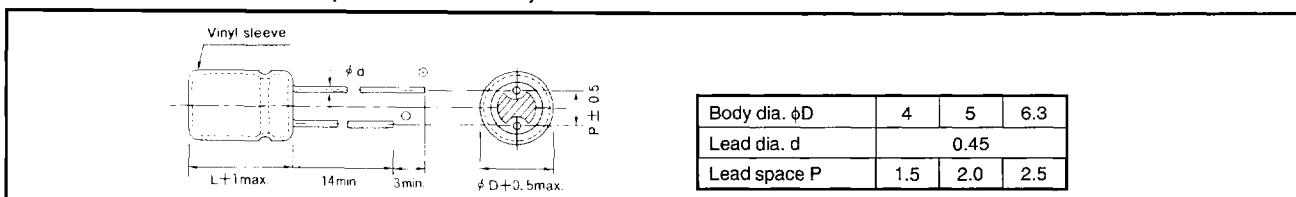
### Specifications

Item	Performance Characteristics							
Operating Temperature Range	-40 to +85°C							
Rated Working Voltage Range	4 to 50V DC							
Normal Capacitance Range	0.1 to 220μF							
Capacitance Tolerance	± 20% (120Hz, +20°C)							
Leakage Current	$I \leq 0.01CV$ or $3[\mu A]$ whichever is the greater after 2 minutes application of rated working voltage at +20°C							
$\tan \delta$ (120Hz, +20°C)	Working voltage [V]	4	6.3	10	16	25	35	50
	$\tan \delta$ max.	0.35	0.24	0.20	0.16	0.14	0.12	0.10
Impedance	Maximum C-Z (rated cap. [ $\mu F$ ] $\times$ impedance [ $\Omega$ ]) value at 10kHz, +20°C.							
	Working voltage [V]	4	6.3	20	16	25	35	50
	C-Z max.	320	240	180	150	120	100	90
Endurance	Test conditions 2000 hours application of DC working voltage at +85°C Post test requirements at +20°C Leakage current : $\leq$ Initial specified value Capacitance change : ±20% of initial measured value ( $\pm 30\%$ for 4V) $\tan \delta$ : $\leq 200\%$ of initial specified value							
Shelf Life	After storage for 1000 hours at +85°C with no voltage applied, the capacitor shall meet the limits of "Endurance".							

### Explanation of Part Numbers



### Dimensions in mm (not to scale)



### Case Size

$\phi D \times L$  [mm]

W.V. [V.DC] Cap.[ $\mu F$ ]	4 (0G)	6.3 (0J)	10 (1A)	16 (1C)	25 (1E)	35 (1V)	50 (1H)
0.1 (0R1)							4 x 7
0.15 (R15)							4 x 7
0.22 (R22)							4 x 7
0.33 (R33)							4 x 7
0.47 (R47)							4 x 7
0.68 (R68)							4 x 7
1.0 (010)							4 x 7
1.5 (1R5)							4 x 7
2.2 (2R2)							4 x 7
3.3 (3R3)						4 x 7	4 x 7
4.7 (4R7)					4 x 7	4 x 7	5 x 7
6.8 (6R8)				4 x 7	→	5 x 7	6.3 x 7
10 (100)				4 x 7	5 x 7	5 x 7	6.3 x 7
22 (220)		4 x 7	5 x 7	5 x 7	6.3 x 7	6.3 x 7	6.3 x 7
33 (330)	4 x 7	5 x 7	5 x 7	6.3 x 7	6.3 x 7		
47 (470)	4 x 7	5 x 7	6.3 x 7	6.3 x 7	6.3 x 7		
100 (101)	5 x 7	6.3 x 7	6.3 x 7	6.3 x 7			
220 (221)	6.3 x 7	6.3 x 7					