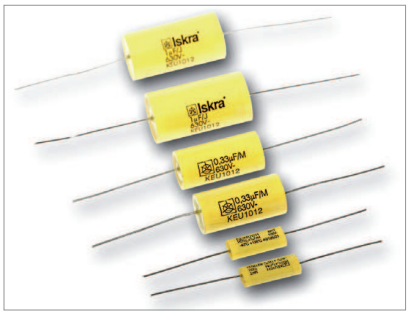
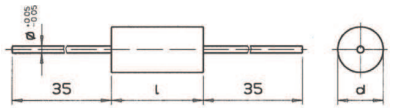
Capacitors

Type KEU1012 axial leads



KEU1012 (dimensions in mm)



TECHNICAL DATA

General technical data

Dielectric:	polyester (polyethylene terephthalate) film
Electrodes:	vacuum metallized aluminum on dielectric
Winding:	non-inductive construction, cylindric shape
Leads:	tinned copper wire
Encapsulation:	polyester film, ends sealed with epoxy resin
Marking:	capacitance, tolerance, rated voltage (at larger dimensions also Iskra symbol, type designation)
Climatic category:	55/100/21, IEC 60068-1
Temperature range:	- 55 °C to + 100 °C
Complies with standards:	IEC 60384-2

Electrical data

Capacitance range:	1000 pF to 10 µF
Standard values of capacitance (C_R):	range E6
Capacitance tolerance:	± 20 % (M), ± 10 % (K), and ± 5 % (J) on special request
Rated voltage (U_R):	63 V DC, 100 V DC, 250 V DC, 400 V DC, 630 V DC, 1000 V DC
Allowed alternative voltage up to 60 Hz:	440 V AC, 63 V AC, 160 V AC, 200 V AC, 220 V AC, 250 V AC
Category voltage (U_C):	up to + 85 °C $U_C = U_R$; from + 85 °C to + 100 °C voltage U_R is lowered for 1,25 % per 1 °C
Test voltage:	1,6 x U_R, 2 s
Dissipation factor (tanδ):	≤ 80 x 10^{-4} at 1 kHz and 20 °C
Self inductance	10 nH/cm length of capacitor and leads
Soldering on printed circuit board:	temperature of soldering bath 270 °C max., soldering time 5 s max.

Insulation resistance (R_i) at 20 °C:

Rated capacitance C_R (µF)	Min. R_i or $R_i \times C_R$ between terminals	
	U_R > 100 V DC	U_R ≤ 100 V DC
≤ 0,33	30000 MΩ	15000 MΩ
> 0,33	10000 s	5000 s

Diameter of leads:

Capacitor lenght l_{max} (mm)	Diameter of leads ø (mm)
11; 14; 19	0,6
26,5; 31,5	0,8

Pulse loading (du/dt):

U_R (V DC)	l_{max} (mm)				
	11	14	19	26,5	31,5
	Allowed pulse loading (V/µs)				
63	12	9	6	3	2,5
100	18	12	8	5	4
250	32	22	14	9	7
400	55	35	20	12	10
630	70	45	32	17	13
1000	-	90	45	26	20

Dimensional data: KEU1012

Capa-citance	Rated voltage U_R											
	63 V DC		100 V DC		250 V DC		400 V DC		630 V DC		1000 V DC	
	$d_{max.}$	$l_{max.}$	$d_{max.}$	$l_{max.}$	$d_{max.}$	$l_{max.}$	$d_{max.}$	$l_{max.}$	$d_{max.}$	$l_{max.}$	$d_{max.}$	$l_{max.}$
(µF)	(mm)		(mm)		(mm)		(mm)		(mm)		(mm)	
0,001									5	11	5	14
0,0015									5	11	5	14
0,0022									5	11	5	14
0,0033									5	11	5,5	14
0,0047									5	11	6	14
0,0068									5,5	11	7	14
0,01							5	11	5	14	6	19
0,015							5	11	5,5	14	6,5	19
0,022							5	11	6,5	14	7,5	19
0,033							5,5	11	6	19	8,5	19
0,047					5	11	5,5	14	6,5	19	10	19
0,068			5	11	5,5	11	6	14	7,5	19	9	26,5
0,1			5	11	5,5	14	7	14	9	19	10,5	26,5
0,15	5	11	5	11	6	14	6,5	19	8,5	26,5	11,5	31,5
0,22	5	11	6	11	7	14	7,5	19	10	26,5	13,5	31,5
0,33	5,5	11	6	14	6,5	19	9	19	12	26,5	16	31,5
0,47	6	14	6,5	14	7,5	19	8,5	26,5	12,5	31,5	18,5	31,5
0,68	6	14	7,5	14	8,5	19	10	26,5	14,5	31,5		
1	7	14	7	19	8,5	26,5	10,5	31,5	17,5	31,5		
1,5	6,5	19	8,5	19	10	26,5	12,5	31,5				
2,2	7,5	19	9,5	19	11	31,5	15	31,5				
3,3	9	19	9,5	26,5	13	31,5	18	31,5				
4,7	9	26,5	11	26,5	15	31,5						
6,8	10	26,5	12	31,5	18	31,5						
10	10,5	31,5	14	31,5	21	31,5						

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