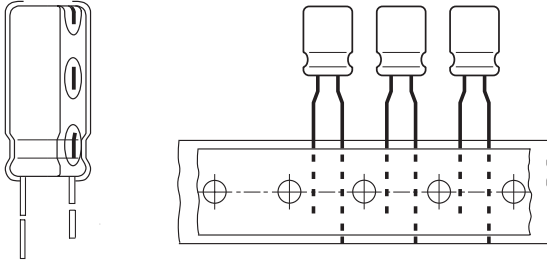


Aluminum Capacitors

Low Leakage Current Radial Style



Component outlines.

FEATURES

- Polarized Aluminum electrolytic capacitor
- High C•U product with miniature dimensions
- Low leakage current
- Low energy requirement
- Large temperature range: -55 °C / 105 °C

APPLICATIONS

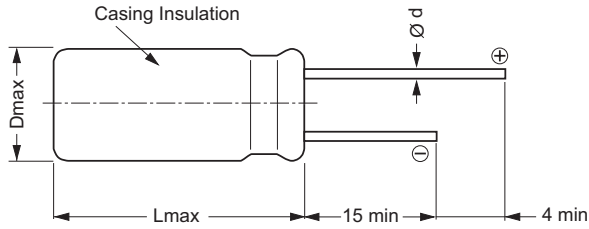
- Industrial electronics, automotive electronics, audio / video systems
- Coupling, decoupling, timing elements, storage
- Portable and mobile units

QUICK REFERENCE DATA		
DESCRIPTION	UNIT	VALUE
Nominal case size (ØD × L)	mm	5 x 11 to 10 x 12.5
Rated capacitance range	µF	0.1 to 330
Capacitance tolerance	%	± 20
Rated voltage range	V	10 to 50
Category temperature range	°C	- 55 to + 105
Endurance test at upper category temperature	h	1000
Useful life at 105°C and I _R applied	h	1500
Useful life at 85°C and I _R applied	h	6000
Useful life at 40°C and I _R applied	h	140000
Failure rate	10 ⁻⁹ /h	≤ 45
Based on sectional specification		IEC 60384-4, EN 130300
Climatic category IEC 60068		55/105/56

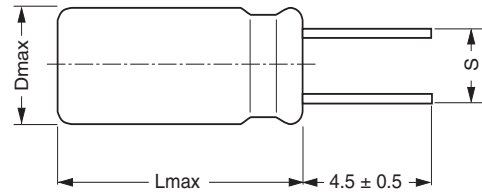
SELECTION CHART FOR C _R , U _R AND RELEVANT NOMINAL CASE SIZE (ØD x L in mm)					
C _R (µF)	RATED VOLTAGE [V]				
	10	16	25	35	50
0.1	-	-	-	-	5 x 11
0.15	-	-	-	-	5 x 11
0.22	-	-	-	-	5 x 11
0.33	-	-	-	-	5 x 11
0.47	-	-	-	-	5 x 11
0.68	-	-	-	-	5 x 11
1.0	-	-	-	-	5 x 11
1.5	-	-	-	-	5 x 11
2.2	-	-	-	-	5 x 11
3.3	-	-	-	-	5 x 11
4.7	-	-	-	-	5 x 11
6.8	-	-	-	-	5 x 11
10	-	-	-	-	5 x 11
15	-	-	-	-	6.3 x 11
22	-	-	5 x 11	6.3 x 11	6.3 x 11
33	-	5 x 11	6.3 x 11	6.3 x 11	8 x 11.5
47	5 x 11	6.3 x 11	6.3 x 11	8 x 11.5	8 x 11.5
100	6.3 x 11	8 x 11.5	8 x 11.5	10 x 12.5	-
220	8 x 11.5	10 x 12.5	-	-	-
330	10 x 12.5	-	-	-	-

10% capacitance tolerance on request

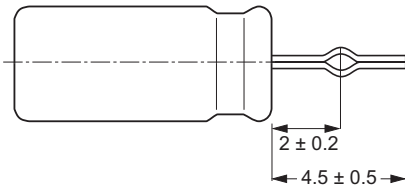
DIMENSIONS in millimeters **AND AVAILABLE FORMS**



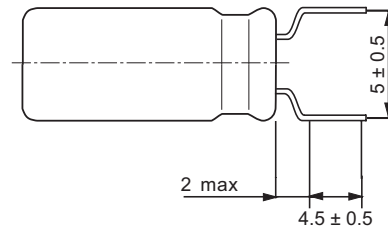
5 ≤ ØD ≤ 10 Long leads EKI 00...



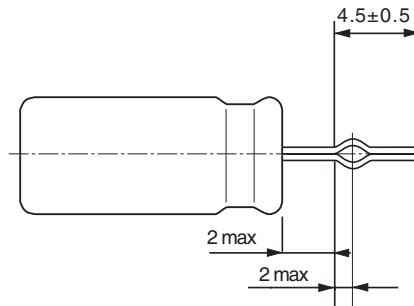
5 ≤ ØD ≤ 10 Shortened leads EKI 05...
(S = 2 / 2.5 / 3.5 / 5mm)



ØD = 10 Leads shortened and formed EKI 06...
(S = 5mm)



5 ≤ ØD ≤ 8 Leads bent open, shortened EKI 09...
(S = 5mm)



Safety vent for ØD ≥ 8mm

5 ≤ ØD ≤ 8 Leads bent open, shortened and formed EKI 06...
(S = 5mm)

RADIAL STYLE: DIMENSIONS in millimeters			
NOMINAL CASE SIZE ØD x L	MAXIMUM SIZE D _{MAX.} x L _{MAX.}	LEAD ØD ± 0.05	LEAD SPACING S ± 0.05
5 x 11	5.5 x 12.0	0.5	2.0
6.3 x 11	6.8 x 12	0.5	2.5
8 x 11.5	8.5 x 12.5	0.6	3.5
10 x 12.5	10.5 x 14.0	0.6	5.0



Aluminum Capacitors
Low Leakage Current Radial Style

Vishay Roederstein

ELECTRICAL DATA	
SYMBOL	DESCRIPTION
C_R	rated capacitance at 120 Hz
U_R	rated voltage
$\tan \delta$	max. dissipation factor at 120 Hz
R_{ESR}	max. equivalent series resistance at 120 Hz
I_{L2}	max. leakage current for acceptance test after 2 minutes at U_R
I_R	rated alternating current (rms) at 120 Hz and upper category temperature

ORDERING EXAMPLE

EKI 220 μ F / 16V, ± 20 %, size: 10mm x 12.5mm

Leads: Long - Ordering code: EKI 00DC322D00

Leads: Short - Ordering code: EKI 05...

Leads: Bent open, shortened - Ordering code: EKI09...

Leads: Bent open, shortened and formed- Ordering code:

EKI 06...

Note

- Unless otherwise specified, all electrical values apply at $T_a = 20$ °C, P = 80 to 120 kPa, RH = 45 to 75%.

The 14th place (\square), not indicated in the following table, is an inter-company code and is not relevant to your order.

ELECTRICAL DATA AND ORDERING INFORMATION								
U_R (V)	C_R 120 Hz (μ F)	NOMINAL CASE SIZE $\varnothing D \times L$	$\tan \delta$ 120 Hz	R_{ESR} 120 Hz (Ω)	I_{L2} (μ A)	I_R 100 kHz/105 °C (mA)	WEIGHT (g)	ORDERING NUMBER
10	47	5 x 11	0.15	5.1	0.9	70	0.5	EKI00AA247C00 \square
	100	6.3 x 11	0.15	2.4	2.0	117	0.8	EKI00BA310C00 \square
	220	8 x 11.5	0.15	1.1	4.4	205	1.1	EKI00PB322C00 \square
	330	10 x 12.5	0.15	0.7	6.6	291	1.5	EKI00DC333C00 \square
16	33	5 x 11	0.12	5.8	1.1	65	0.5	EKI00AA233D00 \square
	47	6.3 x 11	0.12	4.1	1.5	90	0.8	EKI00BA247D00 \square
	100	8 x 11.5	0.12	1.9	3.2	154	1.1	EKI00PB310D00 \square
	220	10 x 12.5	0.12	0.9	7.0	266	1.5	EKI00DC322D00 \square
25	22	5 x 11	0.08	5.8	1.1	65	0.5	EKI00AA222E00 \square
	33	6.3 x 11	0.08	3.9	1.7	92	0.8	EKI00BA233E00 \square
	47	6.3 x 11	0.08	2.7	2.4	110	0.8	EKI00BA247E00 \square
	100	8 x 11.5	0.08	1.3	5.0	189	1.1	EKI00PB310E00 \square
35	22	6.3 x 11	0.08	5.8	1.5	75	0.8	EKI00BA222F00 \square
	33	6.3 x 11	0.08	3.9	2.3	92	0.8	EKI00BA233F00 \square
	47	8 x 11.5	0.08	2.7	3.3	129	1.1	EKI00PB247F00 \square
	100	10 x 12.5	0.08	1.3	7.0	219	1.5	EKI00DC310F00 \square
50	0.1	5 x 11	0.08	1273	0.4	4	0.5	EKI00AA010H00 \square
	0.15	5 x 11	0.08	849	0.4	5	0.5	EKI00AA015H00 \square
	0.22	5 x 11	0.08	579	0.4	7	0.5	EKI00AA022H00 \square
	0.33	5 x 11	0.08	386	0.4	9	0.5	EKI00AA033H00 \square
	0.47	5 x 11	0.08	271	0.4	10	0.5	EKI00AA047H00 \square
	0.68	5 x 11	0.08	187	0.4	11	0.5	EKI00AA068H00 \square
	1	5 x 11	0.08	127	0.4	14	0.5	EKI00AA110H00 \square
	1.5	5 x 11	0.08	85	0.4	17	0.5	EKI00AA115H00 \square
	2.2	5 x 11	0.08	58	0.4	21	0.5	EKI00AA122H00 \square
	3.3	5 x 11	0.08	38	0.4	25	0.5	EKI00AA133H00 \square
	4.7	5 x 11	0.08	27	0.5	30	0.5	EKI00AA147H00 \square
	6.8	5 x 11	0.08	16	0.7	36	0.5	EKI00AA168H00 \square
	10	5 x 11	0.08	13	1.0	44	0.5	EKI00AA210H00 \square
	15	6.3 x 11	0.08	7.5	1.2	62	0.8	EKI00BA215H00 \square
22	6.3 x 11	0.08	5.8	2.2	75	0.8	EKI00BA222H00 \square	
33	8 x 11.5	0.08	3.9	3.3	109	1.1	EKI00PB233H00 \square	
47	8 x 11.5	0.08	2.7	4.7	129	1.1	EKI00PB247H00 \square	

LOW TEMPERATURE BEHAVIOUR					
IMPEDANCE RATIO $Z(T_2) / Z(T_1)$ AT 120 Hz					
T_2/T_1	RATED VOLTAGE (V)				
	10	16	25	35	50
- 25 / + 20 °C	2	2	1.5	1.5	1.5
- 25 / + 20 °C	4	3	2	2	2

LEAKAGE CURRENT

Formula for calculation of the maximum leakage current for acceptance tests I_L :

(Test conditions: U_R , 20 °C, 5 minutes)

$I_{L2} [\mu A] \leq 0.002 \cdot C_R [\mu F] \cdot U_R [V]$ or 0.4 μA (whichever is greater)