

# Koshin

## KPO Large Capacitance Aluminium Electrolytic Capacitors For Audio

### Power Supply Smoothing Use Standard Capacitors Series KPO

Adopting the newly developed formation method and composite electrolytic paper for audio application has reduced distortion achieving high-quality sound. Best suited as power supply filters for sound quality priority audio equipment..

Printed circuit board terminal snap-in type.

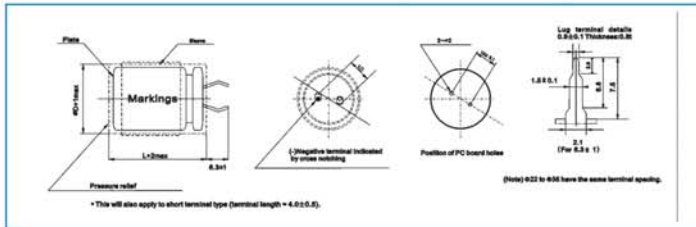
White-printing on a black sleeve.

RoHS

Outline Drawing

Unit: mm

photo



Marking color: White print on a black sleeve

### Specifications

No.	Item	Performance				
1	Temperature range (°C)	-40 to +85				
2	Leakage current (μA)	Less than 0.02CV or 5mA whichever is smaller (after five minutes), C: Capacitance(μF), V: Rated voltage (V) 20°C				
3	Capacitance tolerance (%)	±20 (20°C, 120Hz)				
4	Tangent of the loss angle (Tan)	Tan (max)	Frequency(Hz)	CV>200000	CV≤200000	(20°C, 120Hz)
			Rated voltage (V)			
			16 to 25	0.40	0.30	
35	0.35	0.20				
50 to 100	0.30	0.20				
5	Low temperature characteristics	Impedance ratio	Rated voltage (V)	16 to 35	50 to 100	(120Hz)
			Z(-25°C)/Z(+20°C)	4	3	
			Z(-40°C)/Z(+20°C)	15	10	
6	Endurance (85°C) (Applied ripple current)	Test time		1000hours		
		Leakage current		The initial specified value or less		
		Percentage of capacitance change		Within ±20% of initial value		
		Tangent of the loss angle		200% or less of the initial specified value		
7	Shelf life (85°C)	Test time: 1000 hours other have same as endurance Voltage application treatment				
8	Applicable standards	JIS-C-5101-1, -4 1998 (IEC 60384-1 1992, -4 1985)				

### Coefficient of Frequency for Ripple Current

Rated voltage(v) \ Frequency (Hz)	50	120	1k	10k	20k
50 or less	0.95	1	1.1	1.15	1.15
63 to 100	0.95	1	1.16	1.3	1.33

Dimension:  $\Phi$ DXL(mm)

Ripple Current: mA/rms at 120KHz,85°C

### DIMENSION & PERMISSIBLE RIPPLE CURRENT

V.DC $\Phi$ DXL Contents	16V		25V		35V		50V		63V		80V		100V	
	$\mu$ F	A	$\mu$ F	A	$\mu$ F	A	$\mu$ F	A	$\mu$ F	A	$\mu$ F	A	$\mu$ F	A
22X20	3300	1.2	-	-	-	-	-	-	-	-	-	-	-	-
22x25	4700	1.5	2200	1.0	1500	0.8	1000	0.8	680	0.7	-	-	-	-
22x30	-0	-	3300	1.3	2200	1.3	1500	1.1	1000	0.9	680	0.7	-	-
22x35	6800	2.0	4700	1.7	3300	1.7	-	-	1500	1.2	1000	1.0	680	0.8
22x40	-	-	-	-	-	-	2200	1.5	-	-	-	-	-	-
22x45	10000	2.7	6800	2.2	4700	2.3	-	-	2200	1.6	-	-	-	-
22x50	-	-	-	-	-	1.7	3300	2.0	-	-	1500	1.3	1000	1.2
25x25	-	-	3300	1.7	2200	2.2	1500	1.4	1000	1.2	680	1.0	-	-
25x30	6800	2.5	4700	2.1	3300	-	2200	1.8	1500	1.5	1000	1.2	680	1.1
25x35	10000	3.2	-	-	-	2.8	-	-	-	-	-	-	-	-
25x40	-	-	6800	2.7	4700	-	3300	2.3	2200	1.9	1500	1.6	1000	1.4
25x45	-	-	-	-	-	-	-	-	-	-	-	-	-	-
25x50	-	-	10000	3.0	6800	2.6	4700	2.4	3300	2.0	2200	2.0	1500	1.8
30x25	6800	2.6	4700	2.2	3300	2.3	2200	1.9	1500	1.6	1000	1.3	680	1.1
30x30	10000	3.3	6800	2.7	4700	2.8	3300	2.4	2200	1.9	1500	1.6	1000	1.4
30x35	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30x40	-	-	10000	3.1	6800	2.7	4700	2.4	3300	2.1	2200	2.1	1500	1.8
30x45	-	-	-	-	-	-	-	-	-	-	-	-	-	-
30x50	-	-	-	-	10000	3.4	6800	3.1	4700	2.6	3300	2.2	2200	1.8
35x25	10000	3.4	6800	2.8	4700	2.9	3300	2.4	2200	2.0	1500	1.7	1000	1.5
35x30	-	-	10000	3.1	6800	2.7	4700	2.5	3300	2.1	2200	2.1	1500	1.8
35x35	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35x40	-	-	-	-	10000	3.5	6800	3.1	4700	2.6	3300	2.2	2200	1.8
35x45	-	-	-	-	-	-	-	-	-	-	-	-	-	-
35x50	-	-	-	-	-	-	-	-	6800	3.3	4700	2.7	-	-

**Note:**

The KPO series have two types, the one is for usual Audio. We show it as white-printing on black sleeve, it has fixed element & iron-terminal, plate, PVC or PET sleeve.

The other is for high-class Audio. We show it as gold-printing on black sleeve, it has fixed element & copper-terminal, no-plate, PET sleeve.