



MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

HXL Series

• 105°C 2,000~3,000Hrs assured.

- Non-solvent proof.
- Low Impedance, Long Life.
- Height 7mm.
- For LED TV PSU, DVD Driver.
- RoHS compliant.
- Halogen-free capacitors are also available.

HXB

HXL

Long Life



SPECIFICATIONS

Item	Characteristics								
Rated Voltage Range	6.3 ~ 50 V _{DC}								
Operating Temperature Range	-40 ~ +105°C								
Capacitance Tolerance	$\pm 20\%(\text{M})$ (at 20°C, 120Hz)								
Leakage Current	$I = 0.01CV(\mu\text{A})$ or $3\mu\text{A}$, whichever is greater. Where, I:Max. Leakage current(μA), C:Nominal capacitance(μF), V:Rated voltage(V_{DC}) (at 20°C, 2 minutes)								
Dissipation Factor($\tan\delta$)	Rated voltage(V_{DC})	6.3	10	16	25	35	50		
	$\tan\delta$ (Max.)	0.22	0.19	0.16	0.14	0.12	0.10		
Temperature Characteristics (Max. Impedance ratio)	Rated voltage(V_{DC})	6.3	10	16	25~50	(at 20°C, 120Hz)			
	$Z(-25^{\circ}\text{C})/Z(20^{\circ}\text{C})$	2	2	2	2	(at 120Hz)			
	$Z(-40^{\circ}\text{C})/Z(20^{\circ}\text{C})$	6	4	3	3	(at 120Hz)			
Load Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after the rated voltage is applied for 3,000 hours at 105°C. (where 2,000 hours for Ø4) Capacitance change $\leq \pm 25\%$ of the initial value $\tan\delta$ $\leq 200\%$ of the initial specified value Leakage current \leq The initial specified value								
Shelf Life	The following specifications shall be satisfied when the capacitors are restored to 20°C after exposing them for 1,000 hours at 105°C without voltage applied. The rated voltage shall be applied to the capacitors for a minimum of 30 minutes, at least 24 hours and not more than 48 hours before the measurements. Capacitance change $\leq \pm 25\%$ of the initial value $\tan\delta$ $\leq 200\%$ of the initial specified value Leakage current \leq The initial specified value								
Others	Satisfied characteristics KS C IEC 60384-4								

RATINGS OF HXL Series

$\frac{\text{V}_{\text{DC}}}{\mu\text{F}}$	6.3	10	16	25	35	50
1						
2.2						
4.7						
10						
22						
33	4X7 1.50 130 5X7 0.70 165	4X7 1.50 130 5X7 0.70 165	5X7 0.70 165	5X7 0.70 165	6.3X7 0.35 260 5X7 0.70 165	6.3X7 0.35 260 5X7 0.70 165
47	5X7 0.70 165	5X7 0.70 165	5X7 0.70 165	6.3X7 0.35 260	8X7 0.17 450	8X7 0.17 450
68	6.3X7 0.35 260	6.3X7 0.35 260	6.3X7 0.35 260	6.3X7 0.35 260	8X7 0.17 450	8X7 0.17 450
100	6.3X7 0.35 260	6.3X7 0.35 260	6.3X7 0.35 260	8X7 0.17 450		
150	6.3X7 0.35 260	6.3X7 0.35 260	8X7 0.17 450			
220	8X7 0.17 450	8X7 0.17 450				
330	8X7 0.17 450					

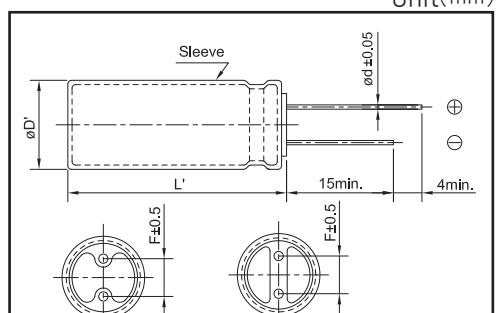
↑ ↑
 Rated Ripple Current (mA rms/105°C, 100kHz)
 Impedance (Ω max./20°C, 100kHz)
 Case Size $\phi D \times L$ (mm)

RATED RIPPLE CURRENT MULTIPLIERS

Frequency Multipliers

Cap. (μF)	120	1k	10k	50k	100k
1 ~ 150	0.40	0.75	0.90	0.95	1.00
220 ~ 330	0.50	0.85	0.94	0.97	1.00

DIMENSIONS OF HXL Series Unit(mm)



Marking : DARK BROWN SLEEVE, SILVER INK

ϕD	5	6.3	8
ϕd		0.45	
F	2.0	2.5	3.5
$\phi D'$	$\phi D + 0.5\text{max}$		
L'	$L + 1.0\text{max}$		