

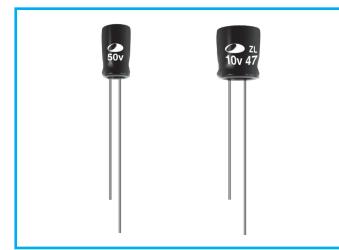
# MINIATURE ALUMINUM ELECTROLYTIC CAPACITORS

**ZL** High Ripple Current, Height 7mmL Series



- Super miniature series with 7mmL height
- Load life of 3000 hours at 105°C
- Complied to the RoHS directive

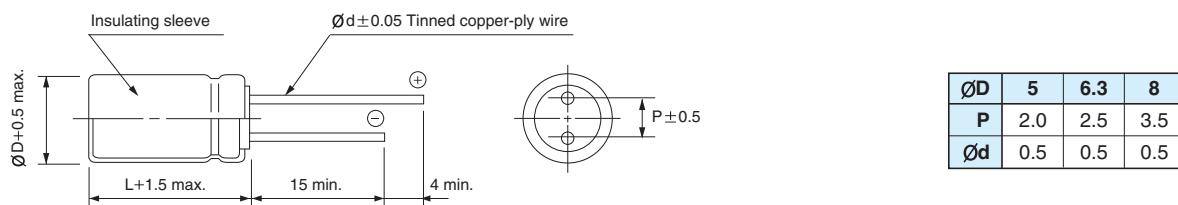
zs → **ZL**  
High Ripple



Item	Characteristics						
<b>Operating temperature range</b>	-40 ~ +105°C						
<b>Leakage current</b>	$I = 0.01CV$ or $3\mu A$ whichever is greater (after 2 minutes) $I = 0.03CV$ or $4\mu A$ whichever is greater (after 1 minute)						
<b>Capacitance tolerance</b>	$\pm 20\%$ at 120Hz, 20°C						
<b>Dissipation factor max.</b> (at 120Hz, 20°C)	WV	6.3	10	16	25	35	50
	$\tan\delta$	0.22	0.19	0.16	0.14	0.12	0.10
<b>Low temperature characteristics</b> (Impedance ratio at 120Hz)	WV	6.3	10	16	25	35	50
	Z-25°C / Z+20°C	2	2	2	2	2	2
	Z-40°C / Z+20°C	6	4	3	3	3	3
<b>Load life</b>	After an application of DC bias voltage plus the rated AC ripple current for 3000 hours at 105°C. The measurement shall meet the following limits. The DC voltage plus the peak AC voltage combined must not exceed the rated voltage.						
	Leakage current	Less than specified value					
	Capacitance change	Within $\pm 25\%$ of the initial value					
	$\tan\delta$	Less than 200% of the specified value					
<b>Shelf life (at 105°C)</b>	After 1000 hours no load test, leakage current, capacitance and $\tan\delta$ are same as load life value. The measurement shall be performed at 20°C by the KS C IEC 60384 - 4						

## DRAWING

Unit : mm



## DIMENSIONS & MAXIMUM PERMISSIBLE RIPPLE CURRENT

WV Item $\mu F$	6.3			10			16			25			35			50		
	$\emptyset D \times L$ (mm)	Imp.( $\Omega$ ) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	$\emptyset D \times L$ (mm)	Imp.( $\Omega$ ) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	$\emptyset D \times L$ (mm)	Imp.( $\Omega$ ) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	$\emptyset D \times L$ (mm)	Imp.( $\Omega$ ) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	$\emptyset D \times L$ (mm)	Imp.( $\Omega$ ) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz	$\emptyset D \times L$ (mm)	Imp.( $\Omega$ ) max. 20°C 100kHz	Ripple current (mA rms) 105°C 100kHz
2.2																5×7	1.00	165
10																6.3×7	0.42	235
22																5×7	0.84	165
33	5×7	0.84	165	5×7	0.84	165	5×7	0.84	165	5×7	0.84	165	6.3×7	0.42	235	8×7	0.20	350
47	5×7	0.84	165	5×7	0.84	165	5×7	0.84	165	6.3×7	0.42	235	8×7	0.20	350	8×7	0.20	350
68	6.3×7	0.42	235	6.3×7	0.42	235	6.3×7	0.42	235	6.3×7	0.42	235	8×7	0.20	350			
100	6.3×7	0.42	235	6.3×7	0.42	235	6.3×7	0.42	235	8×7	0.20	350						
150	6.3×7	0.20	235	6.3×7	0.42	235	8×7	0.20	350									
220	8×7	0.20	350	8×7	0.20	350												
330	8×7	0.20	350															

## FREQUENCY COEFFICIENT OF PERMISSIBLE RIPPLE CURRENT (See page 103)