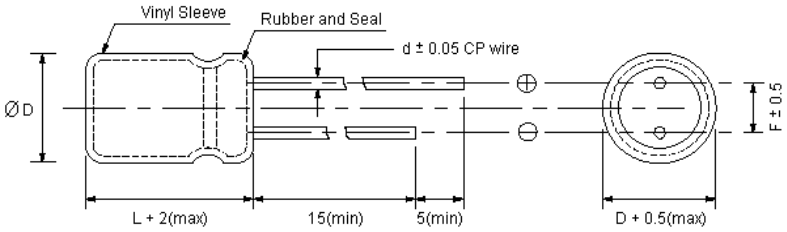
TRANSCEND ELECTROLYTIC CO., LTD.
TRANSCEND ELECTROLYTIC (SHENZHEN) CO., LTD.

RoHS Compliant ALUMINIUM ELECTROLYTIC CAPACITOR — HL Series

■ FEATURES

- ◆ Load life of 5000 hours at 105°C
- ◆ Safety vent construction design
- ◆ For electronic ballast circuits, switching power supply, automotive and other long life required applications

■ OUTLINE



mm

D	10	13	16	18
F	5.0		7.5	
d	0.6		0.8	

■ SPECIFICATIONS

Items	Characteristics						
Capacitance Tolerance (120Hz, 25°C)	± 20% (M)						
Rated Working Voltage Range	160 ~ 400Vdc				450Vdc		
Operation Temperature	-40°C ~ +105°C				-40°C ~ +105°C		
Leakage Current (25°C)	(After 2 minutes applying the DC working voltage)						
	I ≤ 0.06CV + 10 (*u*A)						
	◆ I : Leakage Current (*u*A) ◆ C : Rated Capacitance (*u*F) ◆ V : Working Voltage (V)						
Surge Voltage (25°C)	**W.V.**	**160**	**200**	**250**	**350**	**400**	**450**
	S.V.	200	250	300	400	450	500
Dissipation Factor (120Hz, 25°C)	**W.V.**	**160**	**200**	**250**	**350**	**400**	**450**
	tan δ	0.15	0.15	0.15	0.20	0.24	0.24
Temperature Characteristics	**W.V.**	**160**	**200**	**250**	**350**	**400**	**450**
	- 25°C / + 25°C	3	3	3	5	5	6
	- 40°C / + 25°C	6	6	6	6	6	-
	◆ Impedance ratio at 120Hz						
Load Test	After 5000 hours application of WV at +105°C, the capacitor shall meet the following limits:						
	Capacitance Change	≤ ± 20% of initial value					
	tan δ	≤ 200% of initial specified value					
	Leakage Current	≤ initial specified value					
Shelf Test	After 1000 hours, no voltage applied at +105°C, the capacitor shall meet the following limits:						
	Capacitance Change	≤ ± 25% of initial value					
	tan δ	≤ 200% of initial specified value					
	Leakage Current	≤ 200% of initial specified value					

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■ **DIMENSIONS** — **D x L (mm)**

uF \ WV	160	200	250	350	400	450
3.3					]	10 x 20
4.7					]	13 x 20
10		]	10 x 20	10 x 20	10 x 20	13 x 20
22	10 x 20	10 x 20	13 x 20	13 x 20	13 x 25	16 x 26
33	10 x 20	13 x 20	13 x 20	13 x 25	16 x 26	16 x 31
47	13 x 20	13 x 20	13 x 25	16 x 26	16 x 31	18 x 31
68	13 x 25	13 x 25	16 x 26	16 x 31	18 x 35	18 x 41
100	16 x 26	16 x 26	16 x 31	18 x 31	18 x 41	
150	16 x 31	16 x 35	18 x 31			
220	16 x 31	18 x 31	18 x 41			
330	18 x 31					

■ **PERMISSIBLE RIPPLE CURRENT**

RC: mA (rms) at 120Hz 105°C
Imp: mΩ (ohm) at 100KHz 25°C

uF \ WV / Item	160		200		250		350		400		450	
	RC	Imp	RC	Imp	RC	Imp	RC	Imp	RC	Imp	RC	Imp
3.3										]	60	6.50
4.7										]	80	3.60
10				]	105	3.50	100	3.00	105	2.90	110	3.00
22	160	1.52	160	1.52	165	2.40	165	2.10	185	1.32	200	1.75
33	190	1.30	210	0.98	210	1.90	230	1.00	230	0.95	275	1.20
47	265	0.93	265	0.93	282	1.70	313	0.74	300	0.75	340	0.96
68	355	0.61	355	0.61	385	0.79	410	0.49	420	0.49	460	0.80
100	475	0.28	475	0.28	520	0.64	530	0.40	545	0.36		
150	637	0.22	650	0.22	645	0.44						
220	750	0.22	780	0.22	820	0.35						
330	960	0.22										