Data Sheet

Customer :

Product : Aluminum Electrolytic Capacitors – EFL Series

Size : 8x11.5mm ~ 18x45mm

Issued Date : 01-Jun.-2026

Edition : Ver. 1

Record of change

Date	Ver.	Description	Page
15-Aug.-2016	1		
01-Jun.-2026	2	Add 33uF 400V 13X25mm	2

HITANO ENTERPRISE CORP.

7F-7, No. 3, Wu Chuan 1st Road, New Taipei Industrial Park,
New Taipei City, TAIWAN, R.O.C.
Tel: +886 2 2299 1331 (Rep.)
Fax: +886 2 2298 2466, 2298 2969

Prepared by	Checked by	Approved by	Accepted by (customer)
01-Jun.-2026	01-Jun.-2026	01-Jun.-2026	
Randy Yu	***Michelle Lin***	***Arthur Su***	

HITANO
ENTERPRISE CORP. ®

Subject : Storage of Aluminium Electrolytic Capacitors

We recommend the following conditions for storage :

1. It is recommended to keep capacitors between the ambient temperatures of 5℃to 35℃ and a relative humidity of 75% or below.

2. Confirm that the environment does not have any of the following conditions :
   (1) Damp conditions such as water, saltwater spray, or oil spray or fumes. High humidity or humidity condensation situations.
   (2) In an atmosphere filled with toxic gasses (such as hydrogen sulfide, sulfurous acid, nitrous acid, chlorine, ammonia, elc.)
   (3) Being exposed to direct sunlight, ozone, ultraviolet ray, or radiation.
   (4) Being exposed to acidic or alkaline solutions.

3. Keep capacitors in the original package.

4. Storage life & Re-aging :
   When Aluminium Electrolytic Capacitors are stored without applied voltage, their L.C. (Leakage Current) characteristic increases over time. For long-term stored products, the following treatments must be performed before use :
   (1) For Low Voltage Aluminium Electrolytic Capacitors (i.e., Working Voltage W.V. ≦ 120V) :
   After one year of storage, a test must be performed before use. If the L.C. value exceeds the specified value,it is recommended not to use them, as lifespan and quality cannot be 100% guaranteed.
   (2) For Medium/High Voltage Aluminium Electrolytic Capacitors (i.e., Working Voltage W.V. ≧160V) :
   (A) If stored for more than 6 months, a test must be performed before use to ensure lifespan and quality.
   (B) If stored for 6-24 months and the L.C. value is between 25% and 40% of the specified value, it is recommended to recharge (re-agent) before use. If the L.C. value exceeds 40% of the specified value, do not use.
   (3) Re-aging condition : It is recommended to apply D.C. working voltage to the capacitor for 2 hours through 1KΩ of protective series resistor.

HITANO
ENTERPRISE CORP. ®

EFL SERIES

- EFL series capacitors are suitable for electronic ballast and energy saving lamp..
- Load life 105℃, 8000 ~ 10000 hours assured.

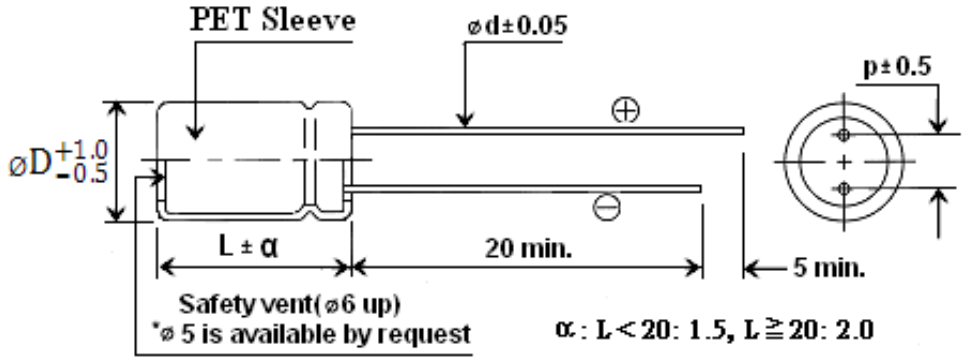
Characteristics

Voltage Range	160 ~450V						
Temperature Range	-40 ~ + 105℃						
Capacitance Range	0.1 to 330 uF						
Leakage Current	I≦0.04CV+100uA, whichever is greater (After 1 minutes)						
Capacitance Tolerance	±20% at 120Hz , 20℃ (10% Tol. is available upon request)						
Dissipation Factor	Rate Voltage (V)	160	200	250	350	400	450
	Dissipation Factor (tanδ) max	0.10	0.10	0.10	0.12	0.12	0.12
Low Temperature Characteristics (120Hz)	Rate Voltage (V)	160	200	250	350	400	450
	Z-25℃ / Z+20℃	3	3	3	5	5	6
	Z-40℃ / Z+20℃	6	6	6	6	6	8
Load life	Test condition Duration time : As right Ambient temperature : +105℃ Applied voltage : Rated DC working voltage After test requirement at +20℃ Capacitance change : ≦±20% of the initial measured value Dissipation factor : ≦200% of the initial specified value Leakage current : ≦The initial specified value						
Shelf life (at 105℃)	Test conditions Duration time : 1000 hours Ambient temperature : +105℃ Applied voltage : None After test requirement at +20℃ : Same limits as Load life. Pre-treatment for measurements shall be conducted after application of DC working voltage for 30 minutes.						

φ (mm)	Life(hrs)
8	8000
≧10	10000

For standard size

Drawing



Dϕ	5	6.3	8	10	13	16	18
p	2.0	2.5	3.5	5.0	5.0	7.5	7.5
dϕ	0.5	0.5	0.5	0.6	0.6	0.8	0.8

Ripple Current Coefficients

Frequency(Hz)	120	1K	10K	≧100K
Multiplier	0.50	0.80	0.85	1.0

Multiplier for R.C. vs Temperature

Temp.(℃)	45	60	70	85	95	105
Multiplier.	2.10	1.90	1.65	1.40	1.25	1.00

Dimensions, Maximum Permissible Ripple Current & Impedance

WV / Cap(uF)	160		200		250		350		400		450	
	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple	Size	Ripple
1.0							8X11.5	80	10X12.5	85	10X12.5	90
2.2							10X12.5	85	10X12.5	90	10X12.5	95
3.3					8X11.5	80	10X12.5	90	10X16	100	10X16	110
4.7					10X12.5	105	10X16	105	10X20	115	10X20	125
6.8			10X12.5	105	10X12.5	110	10X16	115	10X20	125	10X20	135
10	10X16	125	10X16	125	10X16	140	10X20	150	13X20	170	13X20	185
22	10X20	200	10X20	200	13X20	200	13X20	260	13X25	270	16X21	290
33	10X20	250	13X20	260	13X20	320	13X25	360	13X25 16X25	356 370	16X25	390
47	13X20	300	13X20	390	13X25	390	16X25	430	16X31.5	470	18X31.5	480
68	13X20	470	16X21	470	16X25	520	18X25	560	18X31.5	580	18X41	630
100	16X21	580	16X25	630	16X31.5	680	18X35.5	700	18X41 18x31.5	790	18X45	850
150	16X25	690	18X25	840	18X35.5	860	18X45	960				
220	18X31.5	980	18X35.5	1050	18X45	1130						
330	18X41	1250	18X40	1610	18X45	930						

Ripple Current (mA, rms) at 105°C, 120Hz

Part Numbering System

EFL	101	M	2G	A	–	T1
SERIES	CAPACITANCE	TOL.	W.V.	PACKAGE	SIZE	LEAD SPACE
	IN 3DIGITS	K= ± 10%	2C=160V	B= Bulk	Omit if only	Omit if Bulk
	010= 1.0uF	M= ± 20%	2D=200V	C5= Cut 5mm	one size	T1= L/S 2.5mm Taped
	4R7= 4.7 uF		2E=250V	A= Ammo Pack	A=Smaller	TA= Lead forming space 5mm Taped
	101= 100uF		2V=350V	R= Tape&Reel	size	
	331=330uF		2G=400V			T35= L/S 3.5mm Taped
			2W=450V	F5= Lead formed & cut 5mm		T2=L/S 5mm Taped