EVERLIGHT	**EVERLIGHT Electronics Co., Ltd.** Attn: No.6-8, Zhonghua Road, Shulin Dist., New Taipei City,23860, Taiwan

☒ PRODUCT/PROCESS CHANGE NOTIFICATION
☐ PRODUCT TERMINATION NOTIFICATION

PCN tracking number: PCN20260202-02 - CN26010015 **DATE:** 28/01/2026

Contact: Bill Lai **Title:** PM **E-mail:**	**Phone:** **Fax:** +

Product influenced: ☒ Major change ☐ Minor change

Product Identification: (e.g., affected supplier part number(s), affected product lines including specific package types, product family):

EL8XX/EL8XX

Customer part number(s) (optional, if not required per agreed to customer criteria):

N/A

Method, if applicable, of identifying changed product:

There are difference in the appearance of IR chip

Reason for change(s):	Detailed description:
☐ Products Package Outline Dimension ☐ Electrical/Optical Specification ☒ Material: Raw Material ☐ Equipment ☐ Data Sheet ☐ Packing: ☐ Other:	Everlight will introduce new chip alternatives to ensure product quality and supply chain stability.

Anticipated (positive and negative) impact on form, fit, function, quality, or reliability:

The dimensions, appearance, basic electrical properties and characteristic curves all conform to the specifications in the datasheet.

Supplier Qualification plan schedule and/or results, where applicable:

N/A

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Forecasted key milestones	Date
Date, if required, when qualification samples are available	--
Date, if required, when final qualification data are available	--
Proposed First Ship Date for change	--
Last buy date	28.07.2026
Execution date	28.07.2026

Customer acknowledgement of receipt within 30 days of delivery of the PCN:

Customer: **Name/Date:** **Title:**	☐ **Approval for shipments before effective date** **E-mail/Address:** **Phone/Fax:**

Customer Comments:

EVERLIGHT acknowledgement of receipt:

RECORD BY: **DATE:**

The document of individual PCN information will be retained for a minimum of 5 years.

晶片對比資料
Chip comparison data

www.everlight.com

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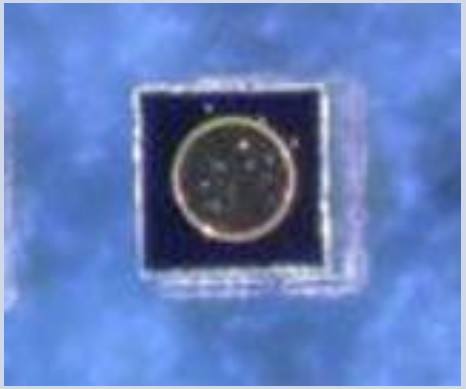
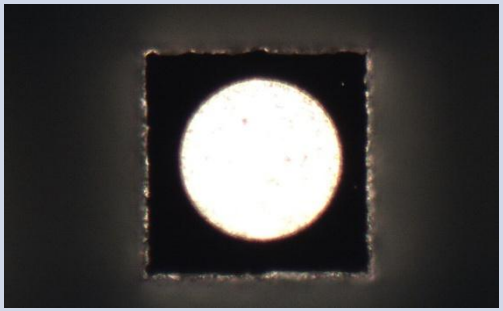
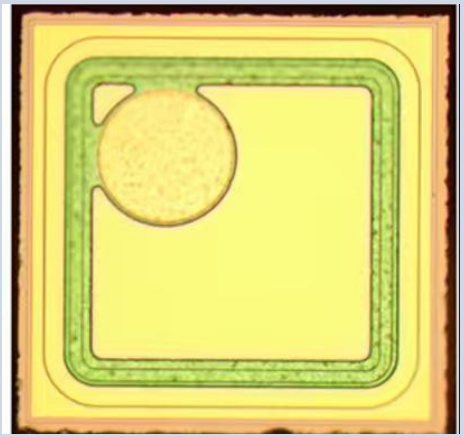
大綱Outline

- 晶片外觀比較Comparison of chip appearance
- 基本電性比較Basic electrical property comparison
- 特性曲線比較Characteristic curve comparison
- 結論Conclusion

晶片比較Chip comparison

晶片型號Chip model	現有晶片Existing chip	替代晶片Replacement chip
晶片尺寸(mm*mm)Chip size	0.20*0.20	0.17*0.17
晶片厚度(mm)Chip thickness	0.23±0.3	0.22±0.2
晶片外觀Chip appearance		
Forward Voltage (V_F)	Max:1.28V(@I_F=20mA)	Max:1.29V(@I_F=20mA)
Reverse Voltage (V_R)	Min:8V(@I_R=10uA)	Min:8V(@I_R=10uA)

晶片比較Chip comparison

晶片型號Chip model	現有晶片Existing chip	替代晶片Replacement chip
晶片尺寸(mm*mm)Chip size	0.415*0.415	0.368*0.368
晶片厚度(mm) Chip thickness	0.18±0.2	0.18±0.2
晶片外觀Chip appearance		
Collector-Emitter Breakdown Voltage(BV_{CEO})	Min:80V(@I_{CE}=100μA)	Min:80V(@I_{CE}=100μA)
Emitter-Collector Breakdown Voltage(BV_{ECO})	Min:7V(@I_{EC}=10μA)	Min:6V(@I_{EC}=10μA)
Dark Curren(I_{CEO})	Max:80nA(@V_{EC}=70V)	Max:85nA(@V_{EC}=70V)

基本電性比較
Basic electrical property comparison

項目Item	V_F	I_R	I_{CEO}	BV_{CEO}	BV_{ECO}	V_{CES}	CTR	t_r	t_f
單位Unit	V	μA	nA	V	V	V	%	μs	
測試條件 Test conditions	I_F=20mA	V_R = 4V	V_{CE}=20V	I_C=0.1mA	I_E=0.1mA	I_F=20mA I_C=1mA	I_F=5mA V_{CE}=5V	V_{CC}=2V I_C=2mA R_L=100	
規格 Specification	<1.4	<10	<100	>80	>7	<0.2	50-600	<18	<18
現有晶片 Existing chip	1.24	0.002	0.005	120.95	10.342	0.05	214.04	5.67	7.50
現有晶片 Existing chip	1.24	0.003	0.007	121.30	10.279	0.05	231.72	5.62	7.47
替代晶片 Replacement chip	1.27	0.009	0.028	110.77	10.15	0.06	192.09	5.60	8.43
替代晶片 Replacement chip	1.28	0.009	0.028	110.36	10.15	0.06	194.96	5.23	8.32

- 基本電性無明顯差異
- There is no significant difference in basic electrical properties.

特性曲線比較(1)
Characteristic curve comparison

藍線為替代晶片;黑線為現有晶片

Blue lines represent replacement chips; black lines represent existing chips.

Figure 1. Forward Voltage vs Forward Current

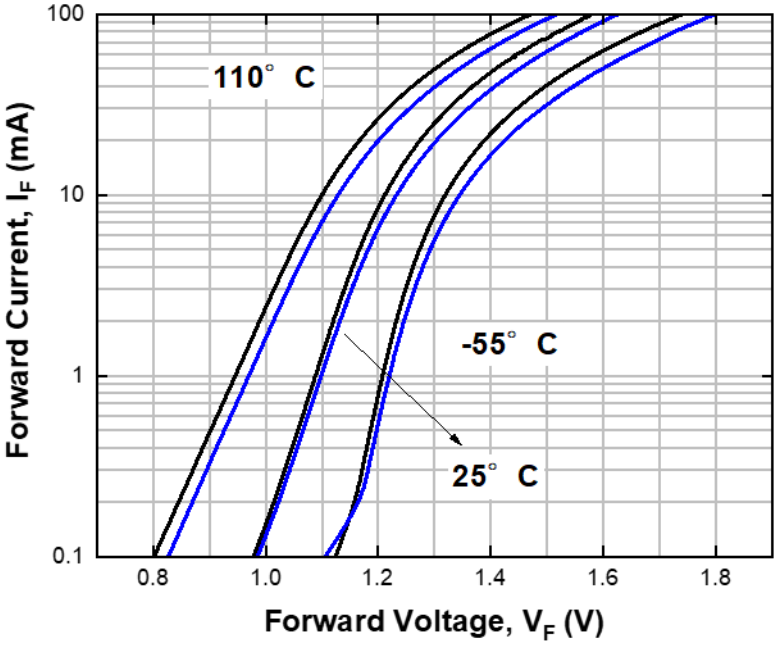
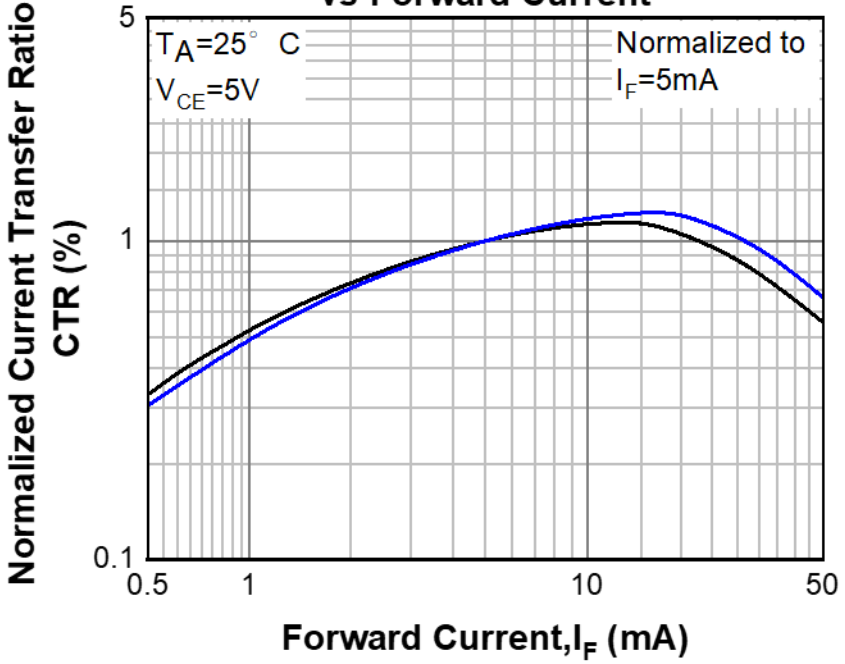


Figure 2. Normalized Current Transfer Ratio vs Forward Current



- 特性曲線無明顯差異
- The characteristic curves showed no significant difference.

特性曲線比較(2)
Characteristic curve comparison

藍線為替代晶片;黑線為現有晶片

Blue lines represent replacement chips; black lines represent existing chips.

Figure 3. Normalized Current Transfer Ratio vs Ambient Temperature

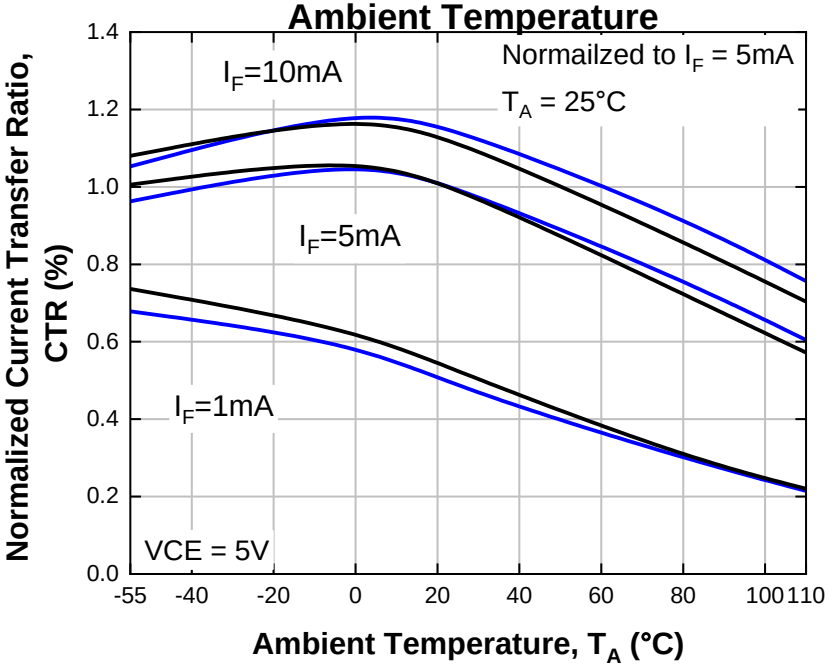
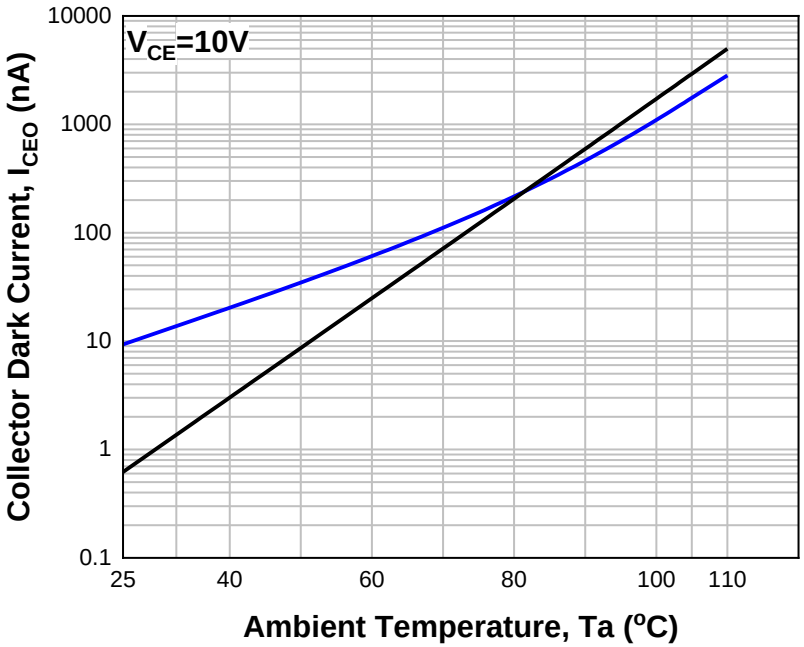


Figure. 4 Dark Current vs Ambient Temperature



- 特性曲線無明顯差異
- The characteristic curves showed no significant difference.

特性曲線比較(3)
Characteristic curve comparison

藍線為替代晶片;黑線為現有晶片

Blue lines represent replacement chips; black lines represent existing chips.

Figure 5. Collector Emitter Saturation Voltage

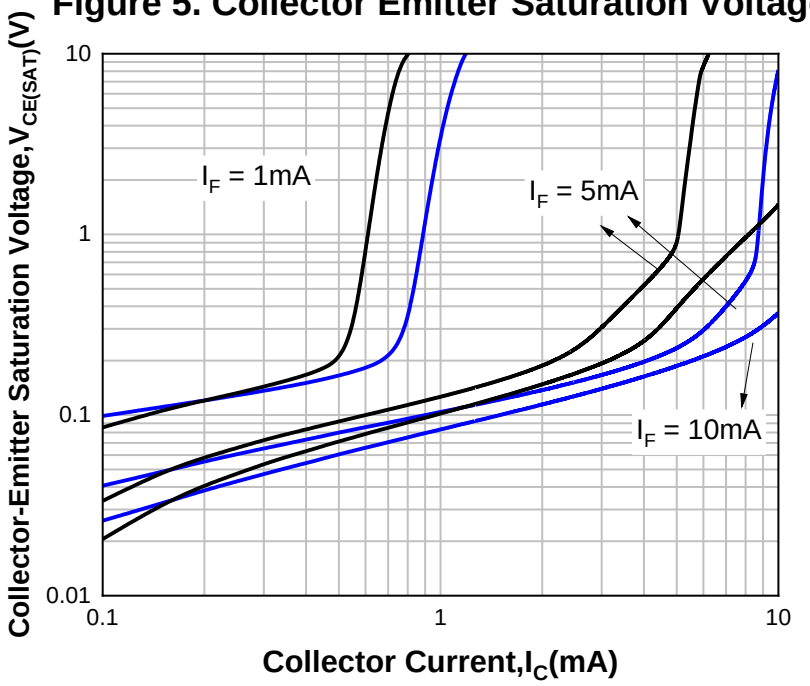
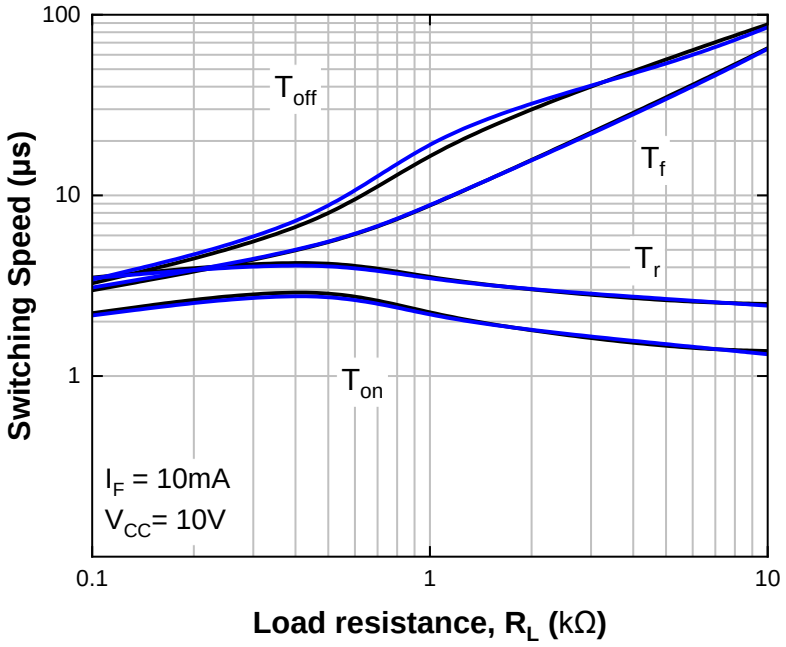


Figure 6. Switching Time vs Load resistance



- 特性曲線無明顯差異
- The characteristic curves showed no significant difference.

結論Conclusion

- 現有晶片和替代晶片特性接近，且基本電性和特性曲線皆符合規格。
- The existing and replacement chips have similar characteristics, and their basic electrical properties and characteristic curves both meet specifications.

- 已通過信賴性驗證(准-25-12-PC1-3498-TP)。
- Reliability verification has been completed (准-25-12-PC1-3498-TP).