

**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: **PCN20260212-01 -CN26020011**

DATE: 17.02.2026

Contact:

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):

See list

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

N/A

Method, if applicable, of identifying changed product:

Differences in chip appearance.

Reason for change(s):

☐ Products Package Outline Dimension

☐ Electrical/Optical Specification

☒ Material: Raw Material

☐ Equipment

☐ Data Sheet

☐ Packing:

☐ Other:

Detailed description:

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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PHONE:

FAX:

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	11.08.2026
Execution date	11.08.2026
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

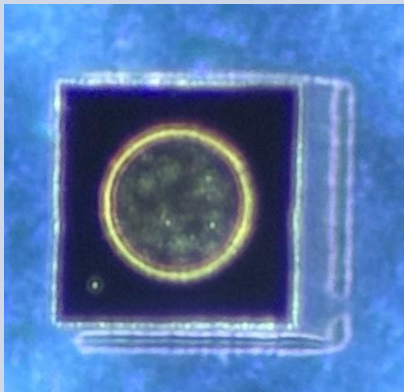
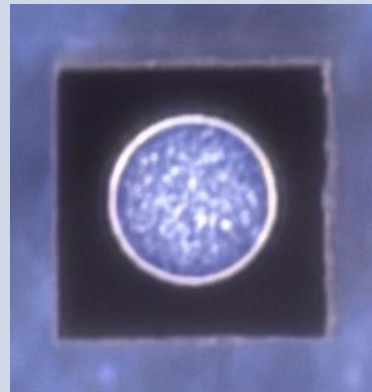
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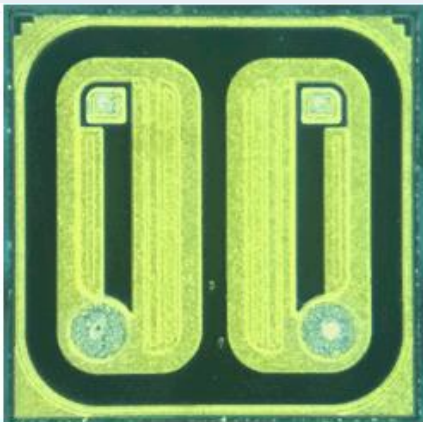
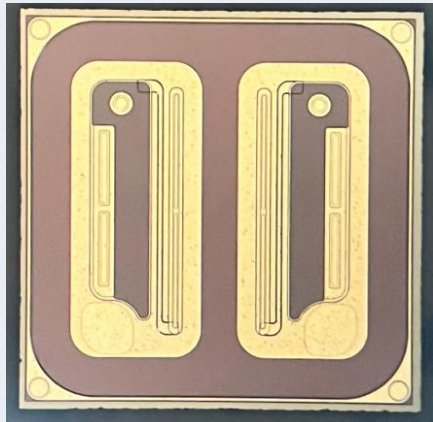
大綱Outline

- 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	0.25*0.25	0.19*0.19
晶片厚度(mm) Chip thickness	0.24±0.03	0.22±0.03
晶片外觀Chip appearance		
Forward Voltage (V_F)	Maximum:1.65(@ I_F =100mA)	Maximum:1.4(@ I_F =20mA)
Reverse Voltage (V_R)	Minimum:5V(@ I_R =10 μ A)	Minimum:5V(@ I_R =10 μ A)

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	0.99*0.99	0.94*0.94
晶片外觀 Chip appearance		
Peak blocking Current (I_{DRM})	Maximum:100nA (@ V_{DRM} =600V)	Maximum:100nA (@ V_{DRM} =800V)
Emitter-Collector Breakdown Voltage(V_{TM})	Maximum:2.2V (@ I_{TM} =100mA)	Maximum:2.3V (@ I_{TM} =100mA)
Holding current(I_{H})	Typical:200 μ A	Typical:400 μ A

基本電性比較

Basic electrical properties comparison

項目Item	V_F	I_R	I_{DRM}	V_{TM}	I_{FT}	I_H
單位Unit	V	μA	μA	V	mA	μA
測試條件 Test conditions	$I_F=10mA$	$V_R=6V$	$V_{DRM}=600V$	$I_{T(RMS)}=100mA$ $I_F=Rated\ I_{FT}$	$V_D=3V$	-
規格 Specification	≤ 1.5	≤ 10	≤ 0.5	<3	<5	Typ:150
現有晶片 Existing chip	1.19	0.000	0.006	1.72	2.11	178
現有晶片 Existing chip	1.19	0.000	0.003	1.77	2.09	171
替代晶片 Replacement chip	1.24	0.000	0.010	2.26	1.76	450
替代晶片 Replacement chip	1.24	0.000	0.009	2.24	1.87	475

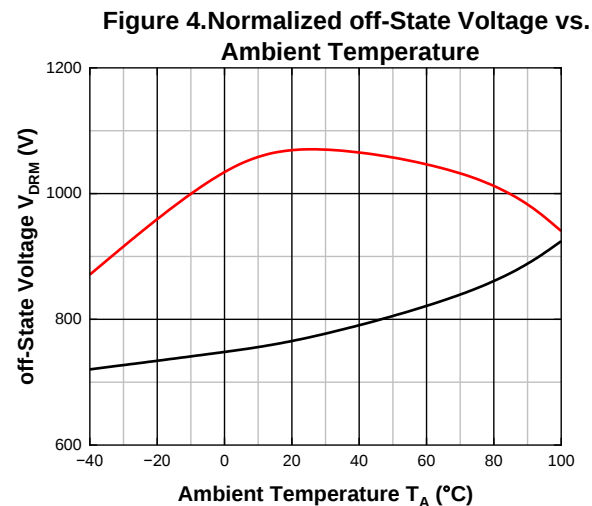
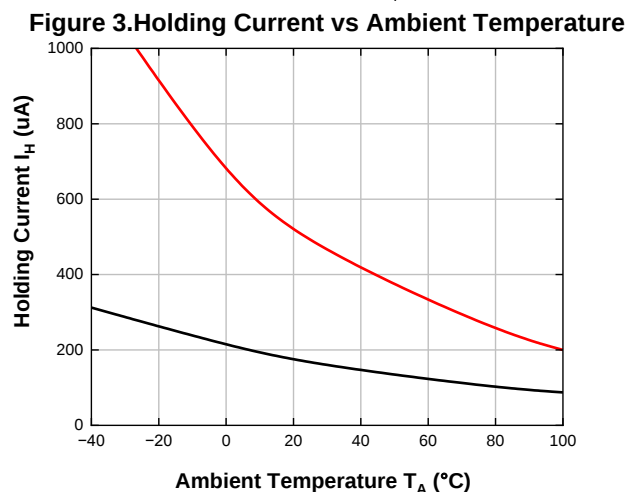
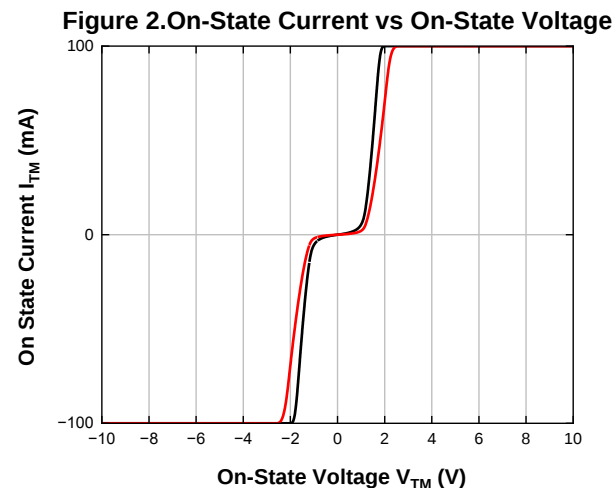
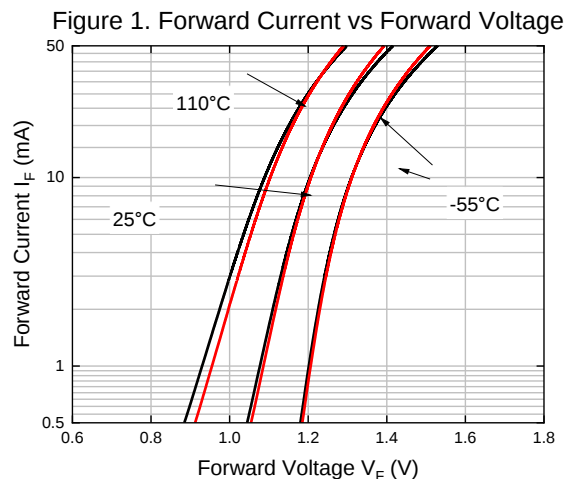
- 基本電性符合規格
- Basic electrical properties conform to specifications

特性曲線比較

Characteristic curve comparison

紅線為替代晶片; 黑線為現有晶片

Red lines represent replacement chips; black lines represent existing chips

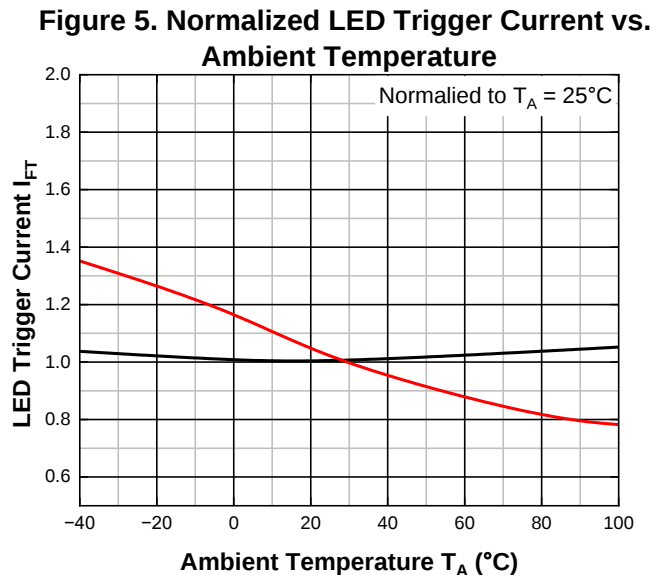


特性曲線比較(2)

Characteristic curve comparison(2)

紅線為替代晶片;黑線為現有晶片

Red lines represent replacement chips; black lines represent existing chips



結論Conclusion

- 現有晶片和替代晶片電性符合規格。
- Existing and replacement chips are electrically compliant with specifications.
- 已通過信賴性驗證(准-25-04-PC1-0763-TP)。
- Reliability verification has been completed (准-25-04-PC1-0763-TP).

RELIABILITY TESTING REPORT

Customer(申請人)	
Depart.(部門)	
Test No.(編號)	准-25-04-PC1-0763-TP
Test Date(試驗日期)	2025/11/08 ~2025/12/23
Product(機種)	EL305X

Reliability Testing Condition

PRIOR TEST:NA

NO	Code	Test Item	Condition	Device	Device	Physical	VF	IR	IDRM-N	IDRM-R	IFT-N	IFT-R	VTM-N	VTM-R	Failure
				Times	Pcs	NG(Pcs)	Δ %	Δ	Δ	Δ	Δ %	Δ %	Δ %	Δ %	Number
Pre-conditioning test: 125℃ 烘烤24小時 85℃ 85%RH 168hrs reflow 3times															
1	TC	溫度循環 Temperature Cycle	-55℃~125℃ / Dwell time 15min / 300 Cycles	BEFORE 300CYCLES	45		0.07% -0.21%	0.0000 0.0000	0.0100 0.0314	0.0409 0.0466	0.974% -0.803%	1.603% -0.153%	-5.012% -4.105%	-5.070% -4.158%	0
2	HTB	高溫 High Temperature Life	110℃ / 1000 H / @If = 15 mA, Ic = AC 20 mA	BEFORE	45		0.09%	0.0000	0.0122	0.1182	0.616%	1.052%	-4.373%	-4.450%	0
				168HRS			-0.07%	0.0000	0.1809	0.0436	-1.187%	-0.392%	-4.306%	-4.370%	
				500HRS			-0.06%	0.0000	0.0249	0.0541	-1.600%	-0.784%	-4.191%	-4.255%	
				1000HRS			-0.07%	0.0000	0.0265	0.0368	-0.579%	-0.072%	-4.210%	-4.264%	
3	HTR	高溫逆向 Temperature with Reverse Bias	100℃ / 1000 H / @Vce=480V	BEFORE	45		0.15%	0.0000	0.0130	0.1102	1.041%	1.761%	-3.467%	-3.437%	0
				168HRS			-0.02%	0.0000	0.0825	0.1597	-2.156%	-1.739%	-3.375%	-3.252%	
				500HRS			-0.03%	0.0000	0.0400	0.0745	-2.220%	-2.256%	-3.104%	-2.983%	
				1000HRS			0.07%	0.0013	0.0390	0.0471	-2.376%	-2.112%	-3.227%	-3.092%	
4	HTHR	高溫高濕逆向 Humidity with Reverse Bias	85℃/85%RH / 1000 H / @Vce=100V	BEFORE	45		0.06%	0.0000	0.0118	0.1033	0.769%	1.538%	-1.510%	-1.497%	0
				168HRS			-0.16%	0.0001	0.0124	0.0342	0.243%	0.008%	-1.341%	-1.274%	
				500HRS			-0.08%	0.0005	0.0207	0.0542	0.841%	0.734%	-1.140%	-1.088%	
				1000HRS			-0.10%	0.0008	0.0235	0.0334	1.074%	0.561%	-1.210%	-1.151%	
Non Pre-conditioning(未吸濕，未上PCB板)															
5	HT	高溫 High Temperature Storage	125℃ / 1000 H	168HRS	45		-0.07%	0.0000	0.0225	0.0312	-0.366%	-0.623%	-0.103%	-0.100%	0
				500HRS			-0.08%	0.0000	0.0278	0.0576	-0.586%	-0.541%	0.004%	0.007%	
				1000HRS			-0.11%	0.0000	0.0379	0.0363	-0.810%	-0.544%	-0.041%	-0.030%	
6	LT	低溫 Low Temperature Storage	-55℃ / 1000 H	168HRS	45		-0.10%	0.0000	0.0151	0.0309	0.000%	0.164%	0.105%	0.101%	0
				500HRS			-0.06%	0.0000	0.0236	0.0578	0.373%	0.644%	0.106%	0.101%	
				1000HRS			-0.10%	0.0000	0.0357	0.0418	0.076%	0.647%	0.079%	0.072%	
7	壓力鍋	壓力鍋	壓力鍋 / 96 H	96HRS	45		-0.06%	0.0000	0.0134	0.0332	0.002%	-0.074%	0.108%	0.101%	0