



Product Change Notice

- Products : LM301B (SPMWHD32AMD*****)
LM301H (SPMWHD32AMH*****)
CCTs : 27/30/35/40/50/57/6500K
- Change : Lead frame Type A → Type B
- Remark : Scheduled to start manufacturing in Jan. 2024

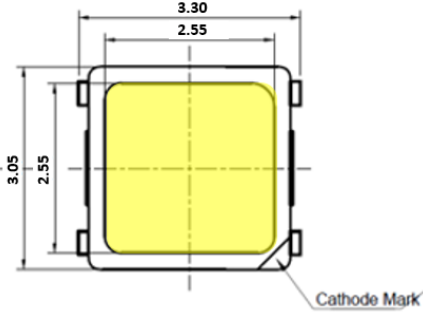
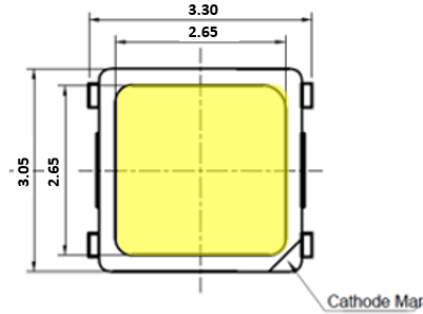


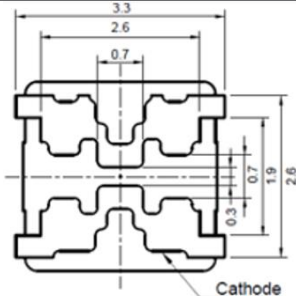
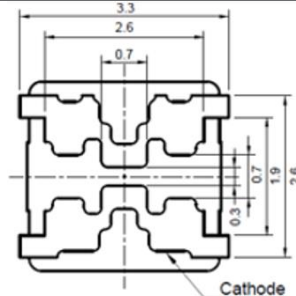
1. Overview

Lead Frame Change : Type A → Type B

		Change	Remark
Material	L/F	Type A → Type B	PCT (Same with LM301B EVO)
Electrical Performance		Same as before	-
Mechanical		Same as before	-
Beam angle		Same as before	-
Radiating Characteristics		Same as before	-
PKG Image		<div>As is</div>  <div>→</div> <div>To be</div> 	-

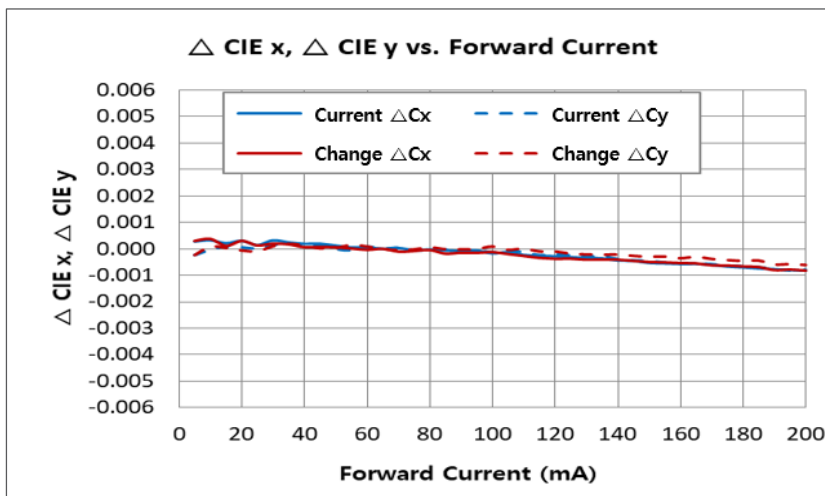
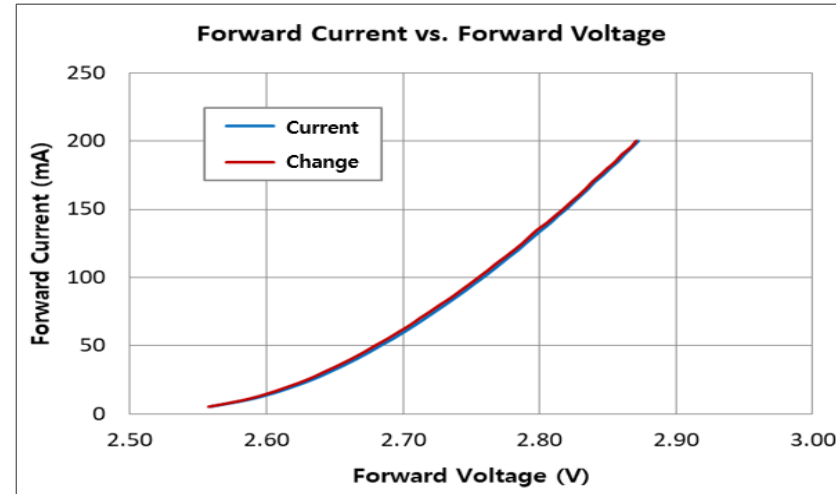
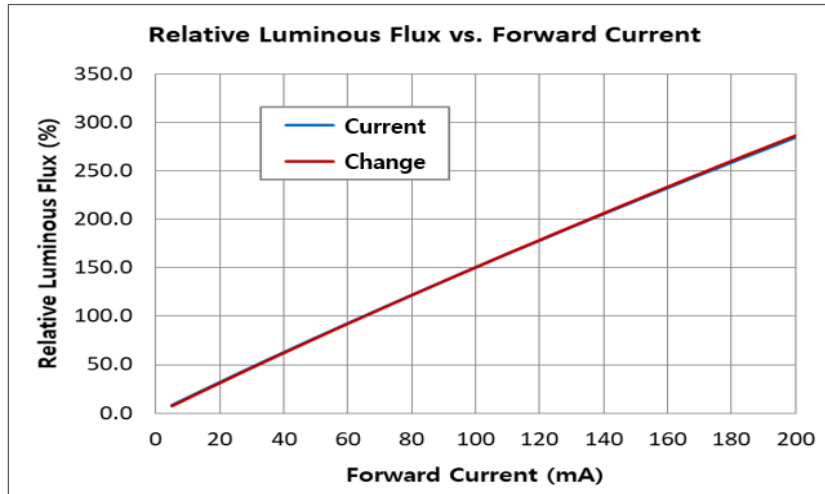
2. Dimension

Appearance Change : LES Size 2.55x2.55 → 2.65x2.65
 PKG height 0.75mm → 0.80mm

	Change	Current	Change
PKG Dimension (Top View)	LES Size		
PKG Dimension (Side View)	Height		
PKG Dimension (Bottom View)	No change		

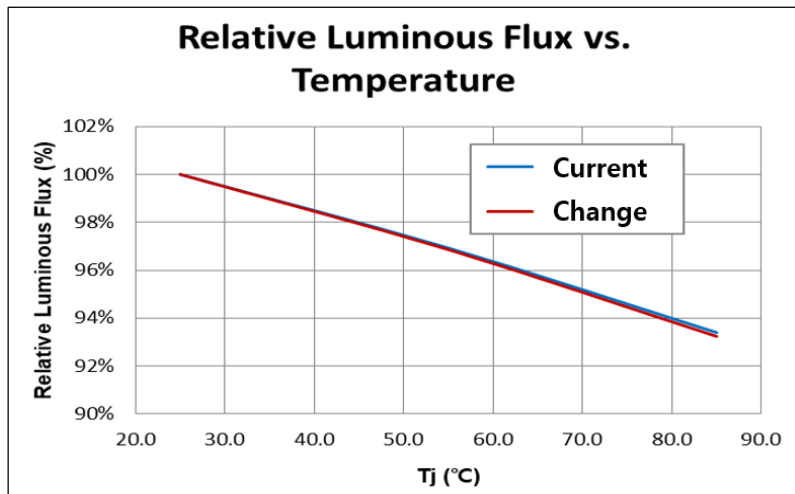
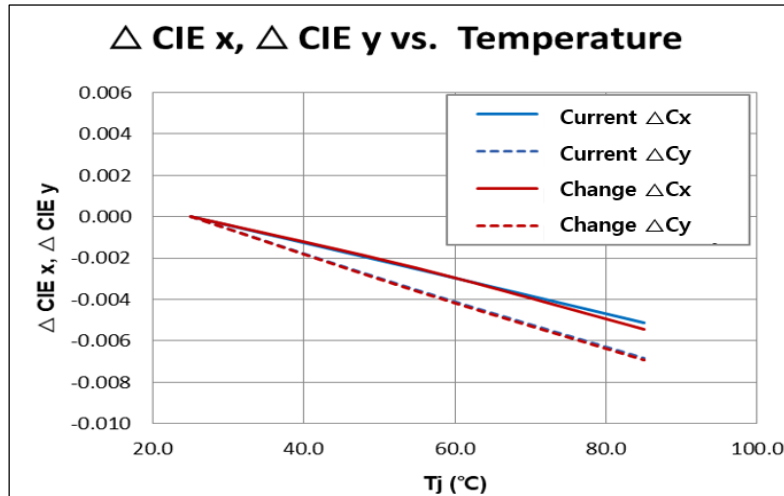
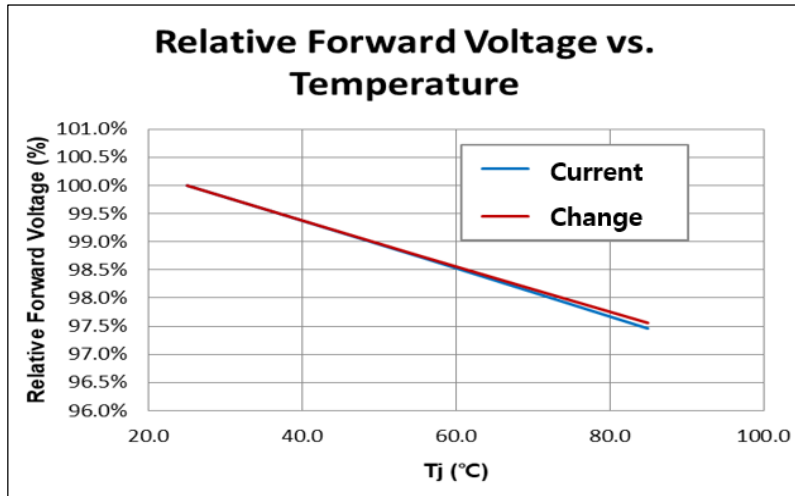
3-1. Sweep Performance

No change Characteristics with Current sweep



3-2. Temperature Performance

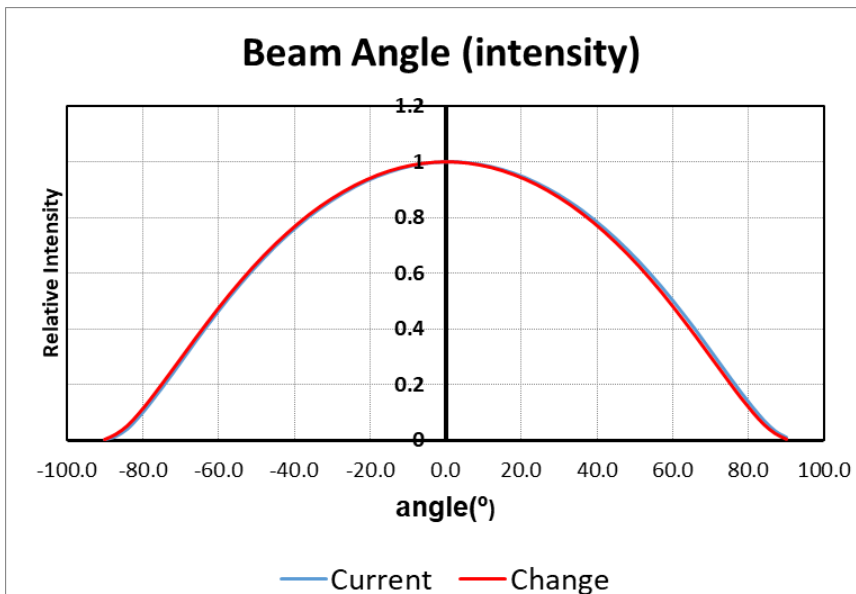
No change Characteristics with Temperature



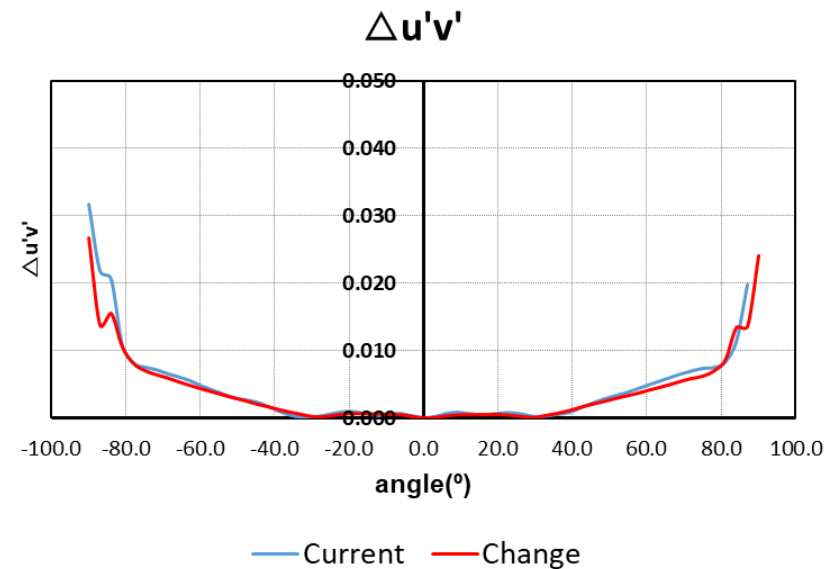
3-3. Optical Performance

No change Optical Characteristics

Radiation diagram



Color Over Angle



4. Reliability

PASS criteria in the specification

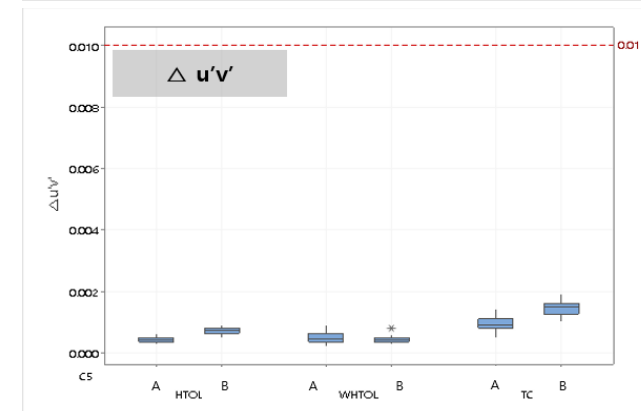
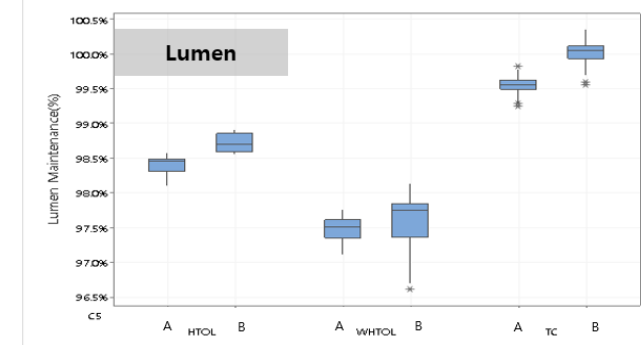
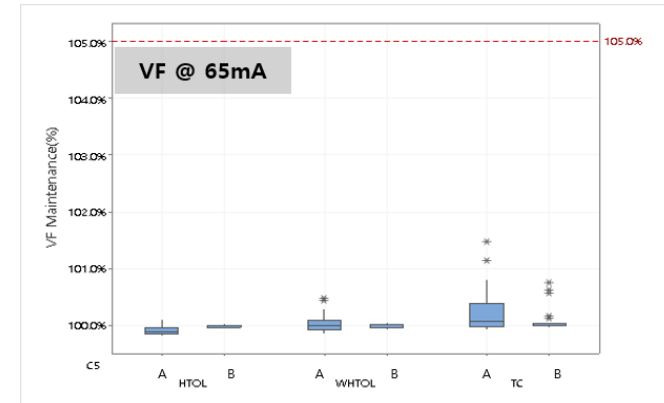
Test Item	Test Condition	Sample Size	Failure Criteria	Applicable Standards	Test Result
HTOL High Temperature Operating Life Test	85°C, 1000hr, Maximum rated IF (200mA)	22ea	lumen maintenance < 70% rate of VF change > 5% $\Delta u'v' > 0.01$	JESD22 -A108	Pass
WHTOL Wet High Temperature Operating Life Test	85°C/85%, 1000hr, Maximum rated IF (200mA)	22ea	lumen maintenance < 70% rate of VF change > 5% $\Delta u'v' > 0.01$	JESD22 -A101	Pass
T/C Temperature Cycling	-45 °C ~ 125 °C, each 15 min, transition time 5min	100ea	LED device should be turned on post T/C test	JESD22 -A104D	Pass

4. Reliability

HTOL		Forward Voltage (%)		Lumen maintenance (%)		$\Delta u'v'$	
		504hr	1008hr	504hr	1008hr	504hr	1008hr
Current A	Min	99.8%	99.8%	98.6%	98.1%	0.000 3	0.000 3
	Max	100.1%	100.1%	98.9%	98.6%	0.000 7	0.000 6
	Avg	99.9%	99.9%	98.8%	98.4%	0.000 5	0.000 4
Change B	Min	100.0%	100.0%	98.9%	98.6%	0.000 5	0.000 5
	Max	100.1%	100.0%	99.3%	98.9%	0.000 9	0.000 9
	Avg	100.0%	100.0%	99.0%	98.7%	0.000 7	0.000 7

WHTOL		Forward Voltage (%)		Lumen maintenance (%)		$\Delta u'v'$	
		504hr	1008hr	504hr	1008hr	504hr	1008hr
Current A	Min	99.9%	99.9%	98.4%	97.1%	0.000 1	0.000 2
	Max	100.1%	100.5%	98.9%	97.8%	0.000 6	0.000 9
	Avg	100.0%	100.0%	98.6%	97.5%	0.000 3	0.000 5
Change B	Min	99.9%	99.9%	97.3%	96.6%	0.000 3	0.000 3
	Max	100.1%	100.0%	98.7%	98.1%	0.000 8	0.000 8
	Avg	100.0%	100.0%	98.4%	97.6%	0.000 5	0.000 4

T/C		Forward Voltage (%)		Lumen maintenance (%)		$\Delta u'v'$	
		300cyc	500cyc	300cyc	500cyc	300cyc	500cyc
Current A	Min	99.9%	99.9%	99.1%	99.2%	0.000 4	0.000 5
	Max	101.0%	101.5%	99.8%	99.8%	0.001 1	0.001 4
	Avg	100.0%	100.2%	99.6%	99.5%	0.000 8	0.000 9
Change B	Min	100.0%	100.0%	99.6%	99.6%	0.000 9	0.001 0
	Max	100.0%	100.7%	100.1%	100.4%	0.001 6	0.001 9
	Avg	100.0%	100.1%	99.8%	100.0%	0.001 3	0.001 5



Thank you