BROADCOM

PCN-268775

Product Change Notice

Issue Date: 08-December-2023

Change Description:
New orange Die replacement for Lead frame Seven Segment Display.

Parts Affected:
HDSP-A401
HDSP-A403
HDSP-U401
HDSP-U403
HDSP-U411
HDSP-U413-LN000
HDSP-U413
HDSP-F401
HDSP-F403
HDSP-H413
HDSP-H413-GH000

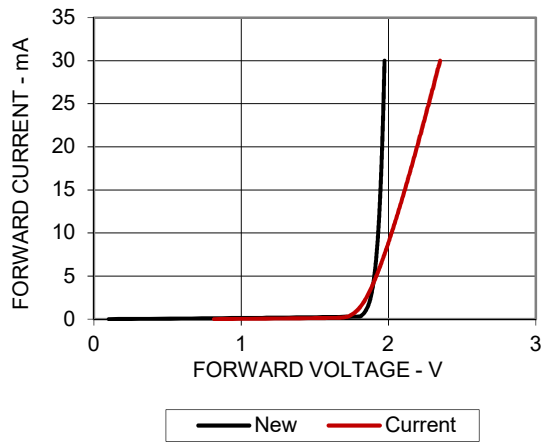
Description and Extent of Change:
The new die (AlInGaP) will replace current die (GaP) for part numbers above.

Reasons for Change:
Die Supply Chain Assurance

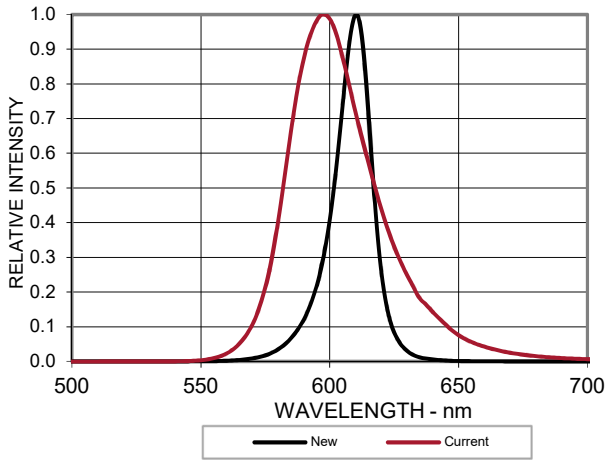
Effect of Change on Fit, Form, Function, Quality, or Reliability:
There is no change in the product fit & form.

Following are changes in product characteristic:
1. Forward Current vs Forward Voltage
2. Relative Intensity vs Wavelength
3. Relative Intensity vs Forward Current
4. Peak forward current
5. 1 to 5 Iv bin higher with the new die source

Forward Current vs Forward Voltage

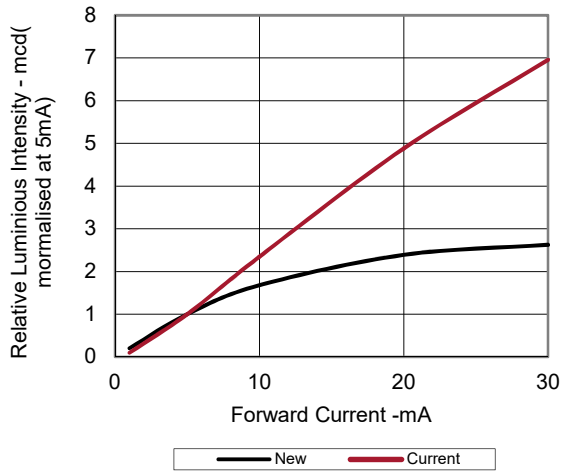


Relative Intensity vs Wavelength



Relative Luminous Intensity vs Forward Current

Normalized @5mA



Part No	Vf Max		Peak Forward Current	
	Current Die	New Die	Current Die	New Die
HDSP-A401, HDSP-A403	2.5V @ 20mA	2.5V @ 20mA	90mA	60mA
HDSP-H413	2.5V @ 20mA	2.5V @ 20mA	90mA	60mA
HDSP-F401, HDSP-F403	2.5V @ 20mA	2.5V @ 20mA	90mA	60mA
HDSP-U401, U403	2.5V @ 20mA	2.5V @ 20mA	90mA	60mA
HDSP-U411, U413	2.5V @ 20mA	2.5V @ 20mA	90mA	60mA

Option part # (Current die) will be replaced with option part # (New die) once the PCN is effective and / inventory of current die is fully depleted. Information on option part # (New die) is as tabulated per table below:

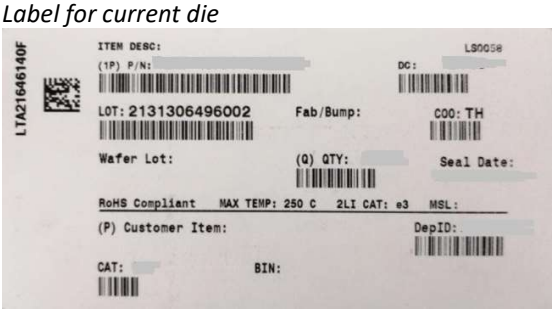
Option part # (Current die)	Option part # (New die)
HDSP-U413-LN000	HDSP-U413-MO000

Effective Date of Change:

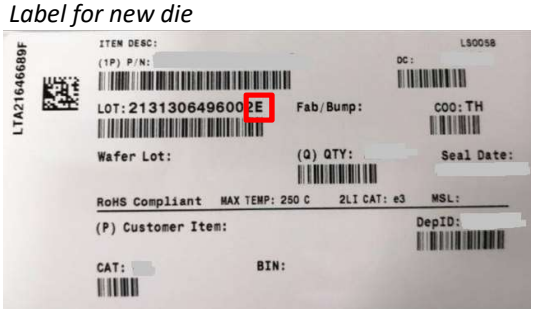
Shipment may contain product from current die and new die starting 25 March 2023 until the inventory of current die is fully depleted. There will be no mixed die within the same tube/ lot.

Part identification:

Label for current die



Label for new die



*Prefix "**E**" will be added to the Lot number*

Qualification Data:

Reliability Test	Test Condition	Result
Temperature Cycle	-55/100'C; 15|5|15min	Pass 100x
High Temperature Operating Life ((55'C)	TA = 55°C , 30 mA	Pass 1000hrs
High Temperature Operating Life ((100'C)	TA = 100°C , 10mA	Pass 1000hrs
Low Temperature Operating Life	TA = –40°C , 30mA	Pass 1000hrs
Temperature Humidity Operating Life	85'C/85%RH; 15mA	Pass 1000hrs
Temperature Humidity Storage Life	85'C/85%RH;	Pass 1000hrs

Please contact your Broadcom field sales engineer or Contact Center for any questions or support requirements. Please acknowledge the receipt of the notice within 30 days of delivery. Lack of acknowledgement within 30 days constitutes acceptance of the change per JEDEC J-STD-046.