



American Opto Plus LED Corp.

Case Mold Type LED Display

CTD1515W-PD-BW

FEATURES

- Excellent character appearance.
- Case mold type.
- Touch pad.
- Black face (overlay) / White segment.
- RoHS compliant, Pb Free.

DESCRIPTION

The CTD1515W-PD-BW is a Touch Pad with 15.0 mm X 15.0 mm icon LED display. This device utilizes Super Bright White LED chip which are made from InGaN on a transparent GaN substrate.

The display has Black face (overlay), White segment.

This mold of display is attached with overlay.

DEVICE

PART NO.	DESCRIPTION
CTD1515W-PD-BW	Touch pad with LED Display

RoHS Compliance



Pb free.



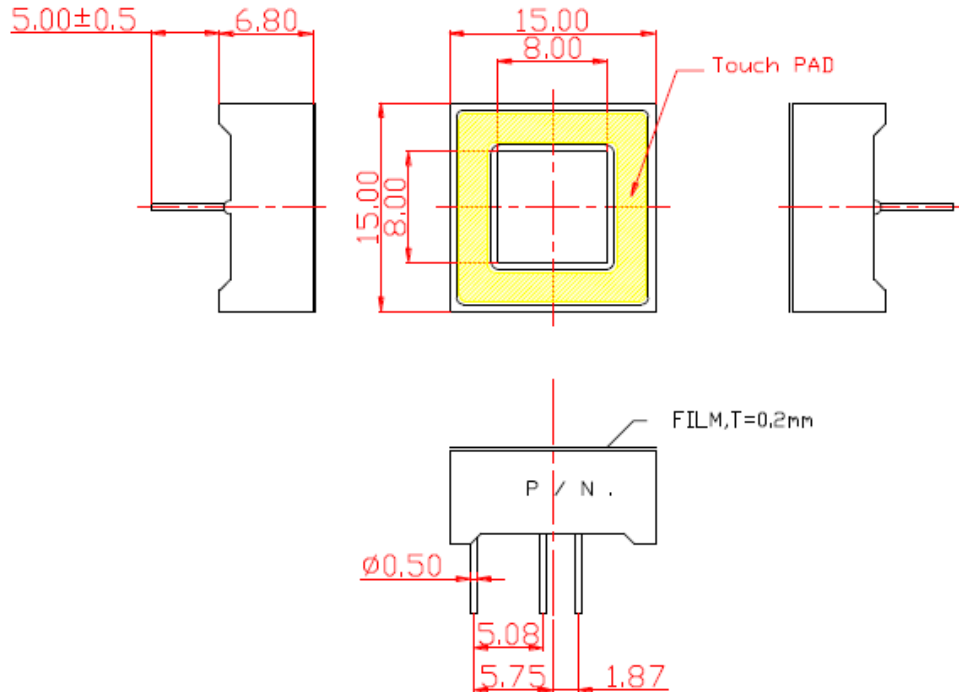


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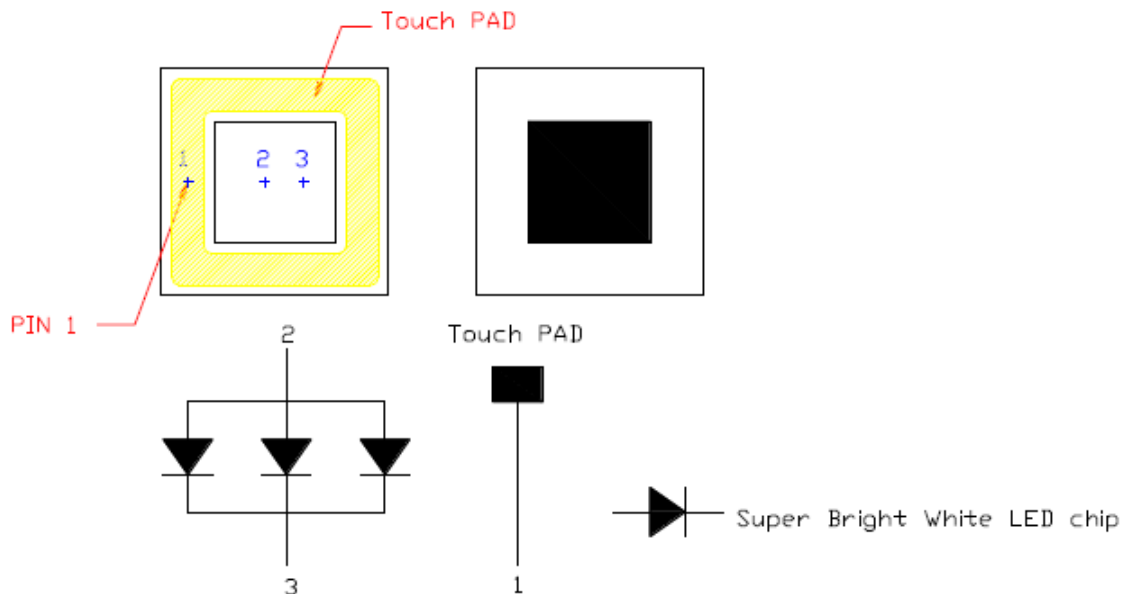
MECHANICAL DIMENSIONS



Notes:

1. All dimensions are in millimeters (inches); tolerances are ± 0.25 mm (0.01") specified

TYPICAL INTERNAL EQUIVALENT CIRCUIT



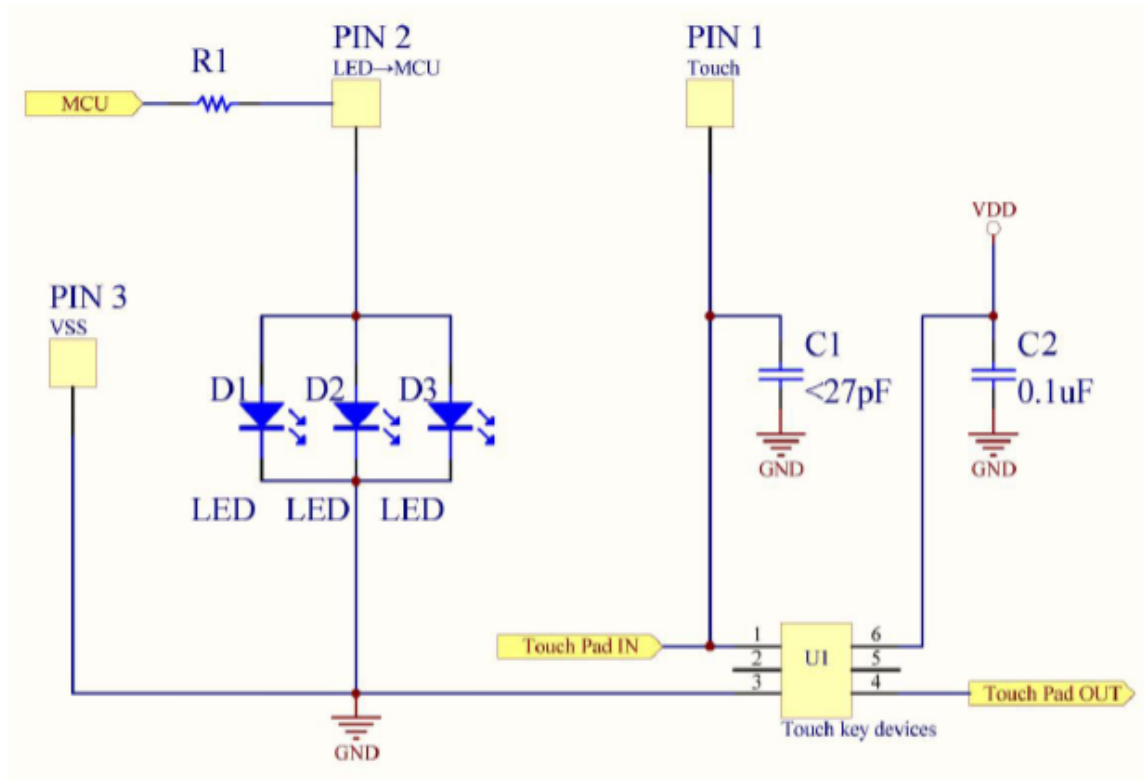


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APPLICATION CIRCUITS



INTERNAL COMPONENTS, NOT CUSTOMER ACCESSIBLE.

FILM





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W: SUPER BRIGHT WHITE (InGaN/GaN)

ABOSULTE MAXIMUM RATING AT Ta=25°C

Parameter	Symbol	Maximum Rating	Unit
Power dissipation	P _{AD}	78	mW
Continuous forward current	I _{AF}	20	mA
Peak current (duty cycle 1/10, 1kHz)	I _{PF}	60	mA
Reverse voltage	V _R	5	V
Operating temperature	T _{OPR}	-40 to +85	°C
Storage temperature	T _{STG}	-40 to +85	°C

ELECTRICAL-OPTICAL CHARACTERISTICS AT Ta=25°C

Characteristic	Symbol	Condition	Min.	Type.	Max.	Unit
Forward Voltage	V _F	I _F = 5mA	-	2.8	3.6	V
Reverse Current	I _R	V _R = 5V	-	-	10	μA
Color Coordinates	X	I _F = 5mA	-	0.28	-	-
	Y	I _F = 5mA	-	0.27	-	-
Average Luminous Intensity	I _V	I _F = 5mA	-	50	-	mcd
Spectral Radiation Bandwidth	Δλ	I _F = 5mA	-	30	-	nm



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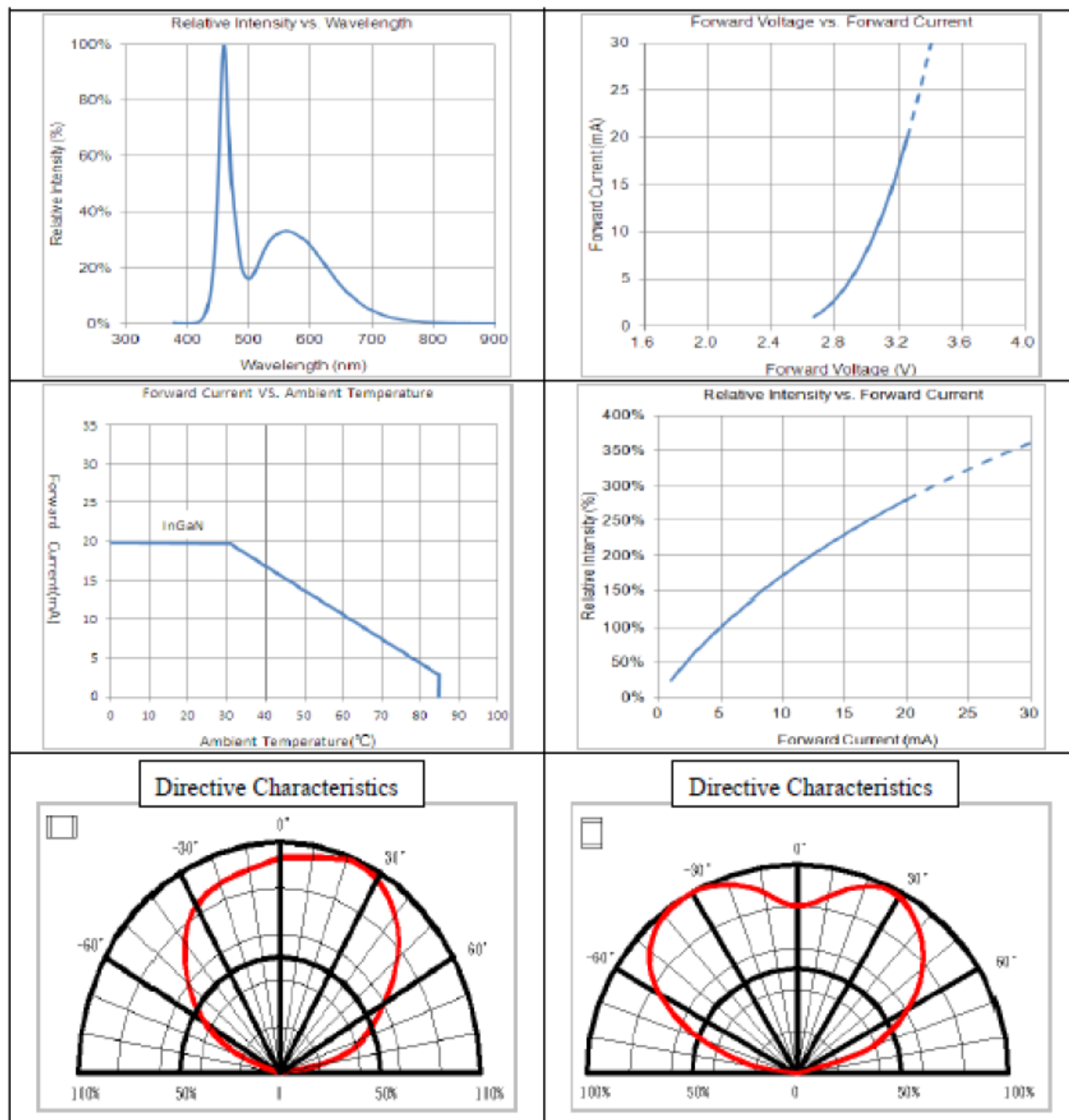
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W: SUPER BRIGHT White (InGaN/GaN) CURVE

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVE

Ta=25°C



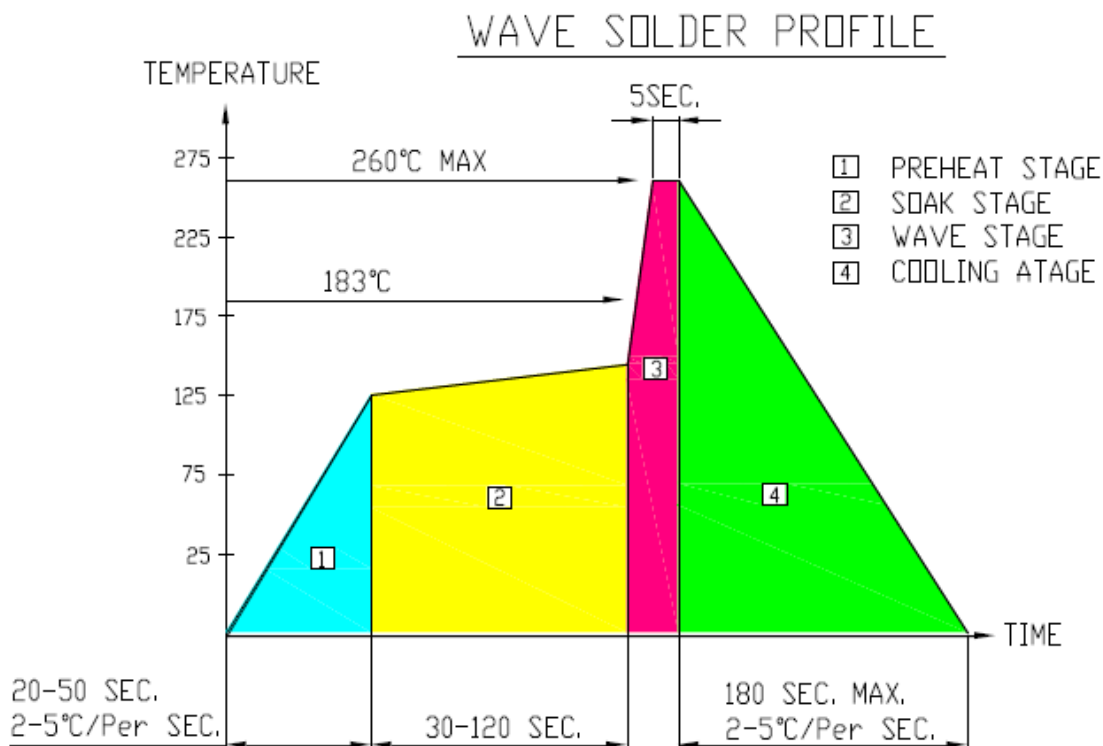


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RECOMMEND SOLDERING PROFILE



NOTES

1. Recommend pre-heat temperature of 105°C or less (as measured with a thermocouple attached to the LED pins) prior to immersion in the solder wave with a maximum solder bath temperature of 260°C
2. Peak wave soldering temperature between 245°C ~ 225°C for 3 sec (5 sec max)
3. No more than one wave soldering pass

SOLDERING IRON

- Basic spec is ≤ 4 sec when 260°C. If temperature is higher, time should be shorter (+10°C→1 sec). Power dissipation of Iron should be smaller than 15W, and temperature should be controllable. Surface temperature of the device should be under 230°C

REWORK

1. Customer must finish rework within 3 sec under 350°C
2. The head of soldering iron cannot touch copper foil