American Opto Plus LED Corp.
Case Mold Type LED Display
CTD1010PG-PD-BW

FEATURES

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

DESCRIPTION

The CTD1010PG-PD-BW is a Touch Pad with 10.0 mm X 10.0 mm icon LED display.

This device utilizes Pure Green 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.

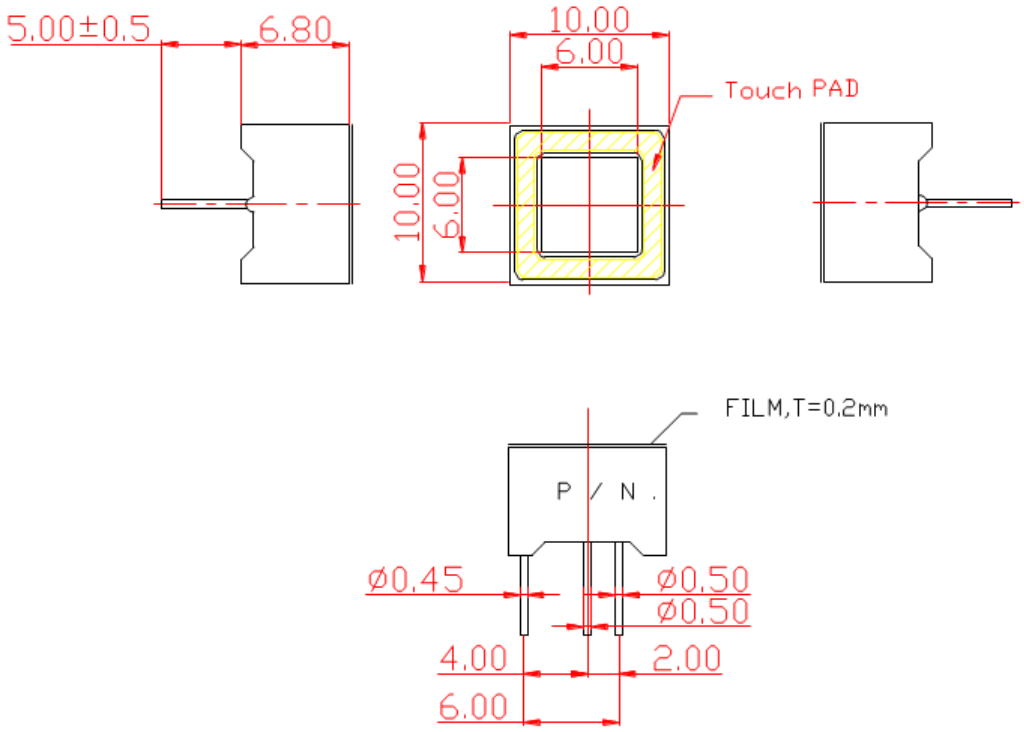
DEVICE

PART NO.	DESCRIPTION
CTD1010PG-PD-BW	Touch pad with LED Display

RoHS Compliance **Pb free.**

Version 1.0 Date: 01-24-2018 Specifications are subject to change without notice.
American Opto Plus LED Corp. 1206 E. Lexington Ave., Pomona CA 91766 Tel: 909-465-0080 Fax: 909-465-0130 www.aopled.com

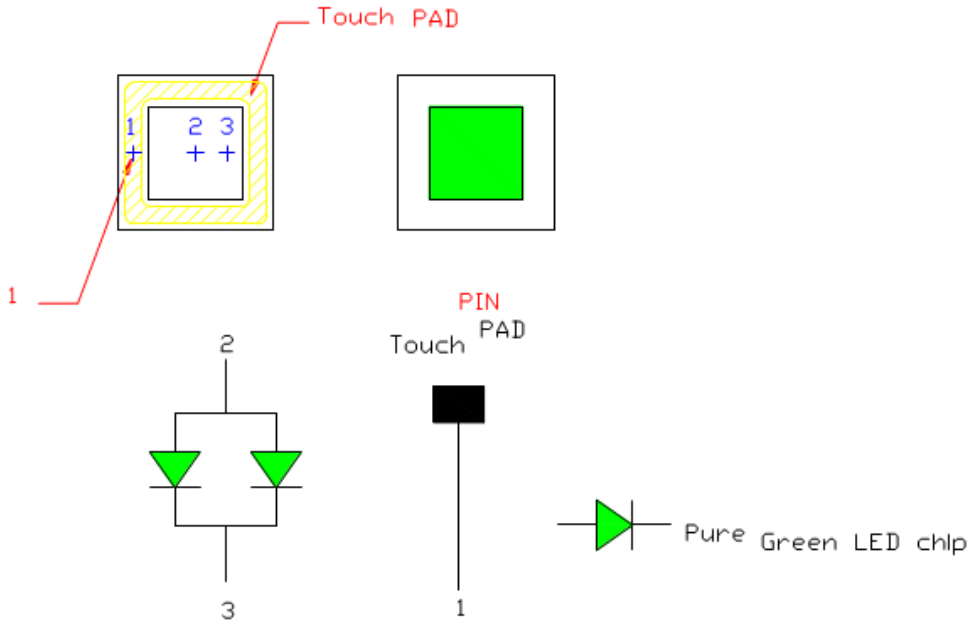
MECHANICAL DIMENSIONS



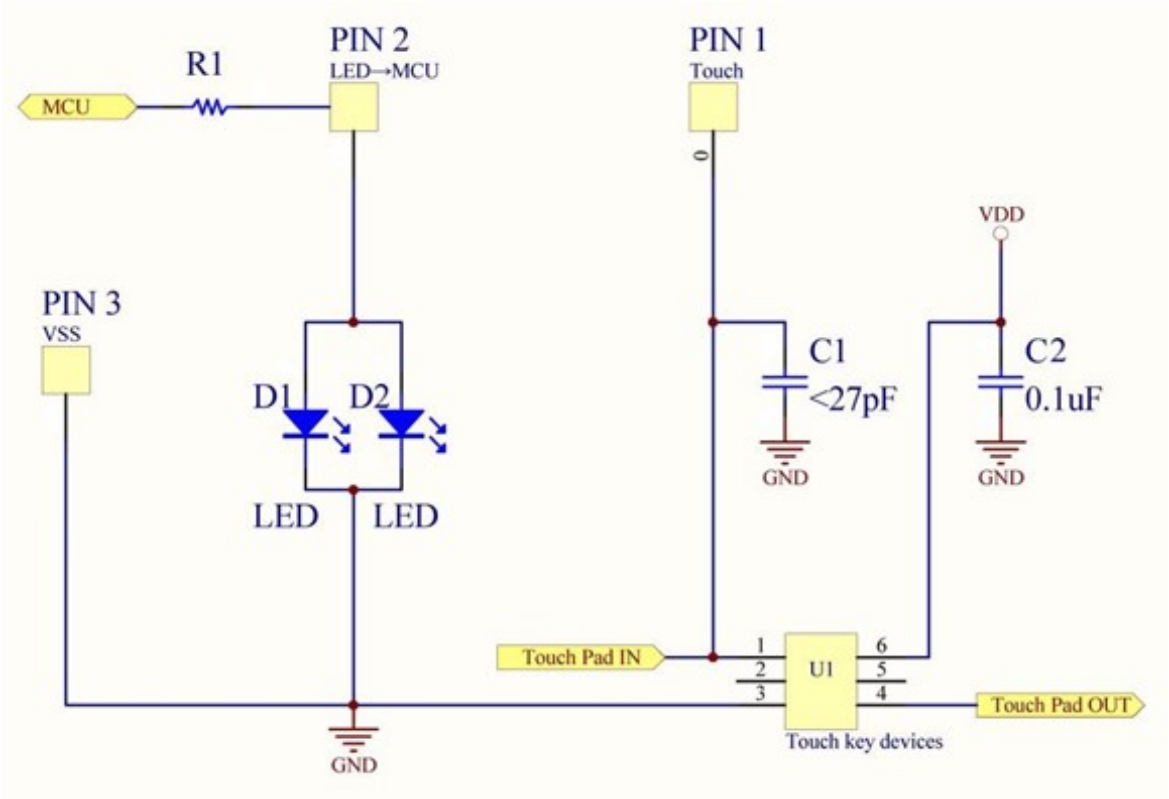
Notes:

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

TYPICAL INTERNAL EQUIVALENT CIRCUIT



APPLICATION CIRCUITS



INTERNAL COMPONENTS, NOT CUSTOMER ACCESSINLE.

FILM

PG: PURE GREEN (InGaN/GaN)

ABOSULTE MAXIMUM RATING AT Ta=25°C

Parameter	Symbol	Maximum Rating	Unit
Power dissipation per dice	P_{AD}	120	mW
Derating liner from 25°C per dice	-	0.3	mA / °C
Continuous forward current per dice	I_{AF}	30	mA
Peak current (duty cycle 1/10, 1kHz)	I_{PF}	100	mA
Reverse voltage per dice	V_R	5	V
Operating temperature	T_{OPR}	-25 to +85	°C
Storage temperature	T_{STG}	-25 to +85	°C

ELECTRICAL-OPTICAL CHARACTERISTICS AT Ta=25°C

Characteristic	Symbol	Condition	Min.	Type.	Max.	Unit
Forward Voltage	V_F	I_F =20mA	-	3.2	4.0	V
Reverse Current	I_R	V_R =8V	-	-	10	μA
Dominant Wavelength	λ_D	I_F =20mA	-	525	-	nm
Average Luminous Intensity	I_V	I_F =20mA	-	75	-	mcd
Spectral Radiation Bandwidth	$\Delta\lambda$	I_F =20mA	-	30	-	nm

PG: PURE GREEN (InGaN/GaN) CURVE

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVE Ta=25°C

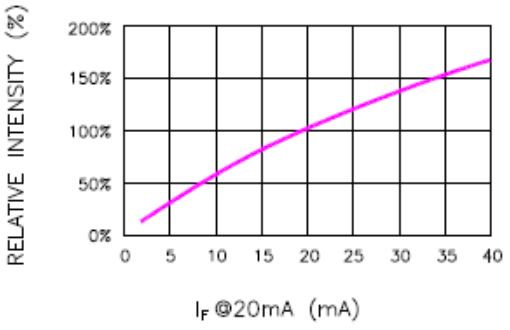


Fig.1 RELATIVE INTENSITY VS. FORWARD CURRENT

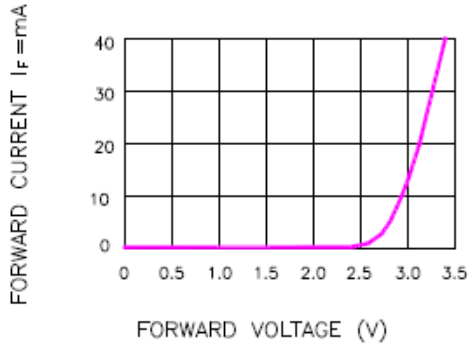


Fig.2 FORWARD CURRENT VS. FORWARD VOLTAGE

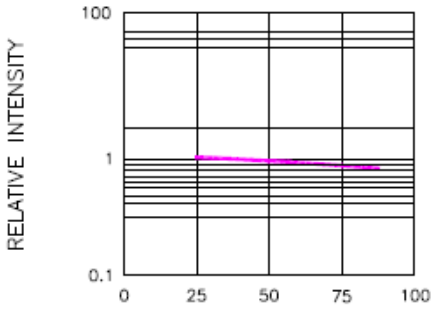


Fig.3 RELATIVE INTENSITY VS.LEAD TEMPERATURE (PULSED 20 mA; 300us PULSE,10ms PERIOD)

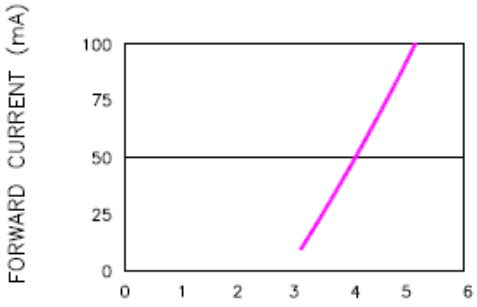


Fig.4 PEAK FORWARD VOLTAGE VS.FORWARD(100us TEST PULSE, 1% DUTY CYCLE)

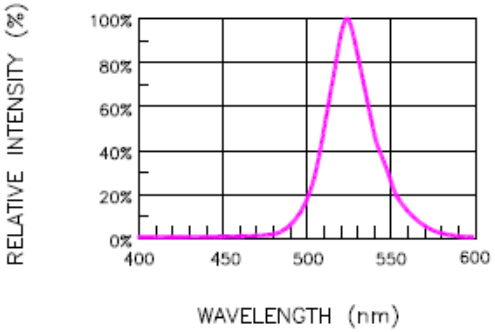


Fig.5 RELATIVE INTENSITY VS. WAVELENGTH

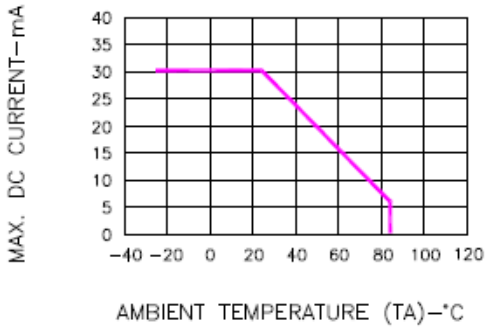
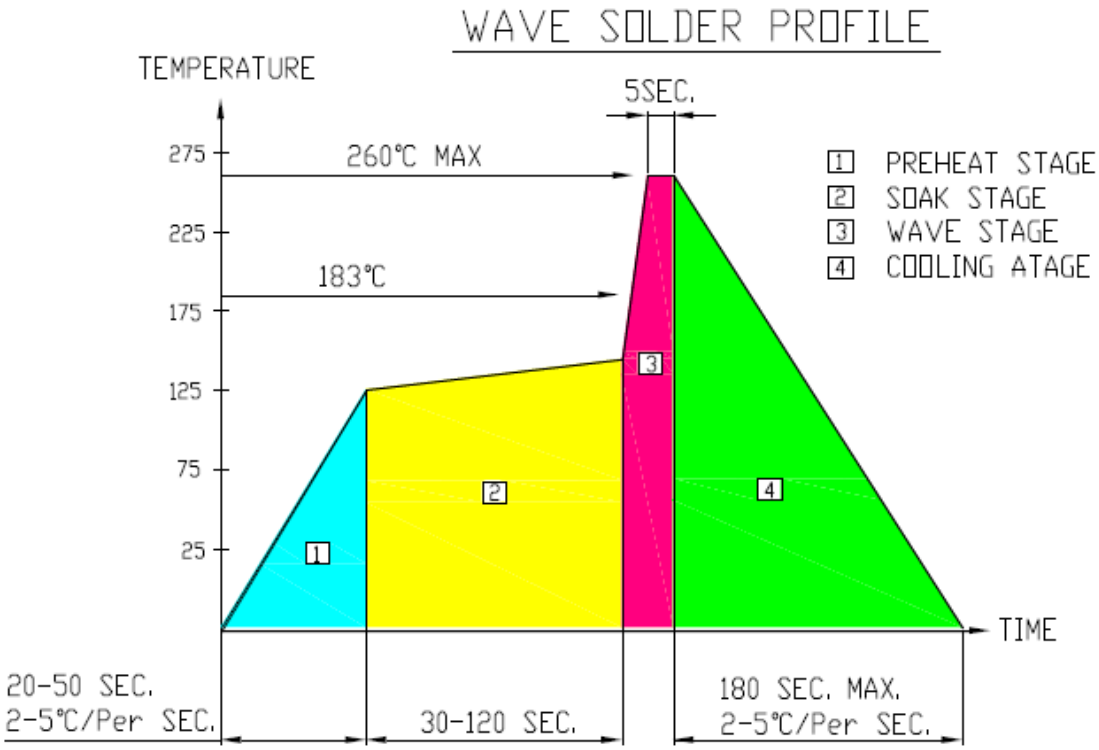


Fig.6 MAX. ALLOWABLE DC CURRENT VS. AMBIENT TEMPERATURE

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