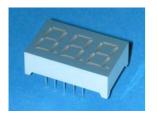
# **EVERLIGHT**

# DATASHEET

# Display Through-hole EADCT036OA0



#### Features

- Industrial standard size.
- Low power consumption.
- Categorized for luminous intensity.
- •The product itself will remain with RoHS Compliant version.
- •Compliance with EU REACH.

•Compliance with Pb free.

# Description

- The EADCT036 is a 9.2mm (0.36") digit height seven-segment display.
- The display provides excellent reliability in bright ambient light.
- The device is made with white segments and gray surface.

# Applications

- Home appliances
- Instrument panels
- Digital readout displays

## **Device Selection Guide**

Chip Materials	Emitted Color	Resin Color
AlGaInP	Orange	White Diffusion

# Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit		
Reverse Voltage	V <sub>R</sub>	5	V		
Forward Current	I <sub>F</sub>	25	mA		
Peak Forward Current (Duty 1/10 @1KHz)	I <sub>FP</sub>	60	mA		
Power Dissipation	Pd	60	mW		
Operating Temperature	T <sub>opr</sub>	-40 ~ +85	C		
Storage Temperature	T <sub>stg</sub>	-40 ~ +90	°C		
Soldering Temperature	T <sub>sol</sub>	Wave Soldering : 260 $^{\circ}$ C for 5 sec. Hand Soldering : 350 $^{\circ}$ C for 3 sec.			

# Electro-Optical Characteristics (Ta=25°C)

Parameter	Symbol	Min.	Тур.	Max.	Unit	Condition
Luminous Intensity <sup>*1</sup>	lv	4.0	8.9		mcd	I <sub>F</sub> =10mA
Peak Wavelength	λр		611		nm	I <sub>F</sub> =20mA
Dominant Wavelength	λd		605		nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	Δλ		17		nm	I <sub>F</sub> =20mA
Forward Voltage	V <sub>F</sub>		2.0	2.4	V	I <sub>F</sub> =20mA
Reverse Current	I <sub>R</sub>			100	μA	V <sub>R</sub> =5V

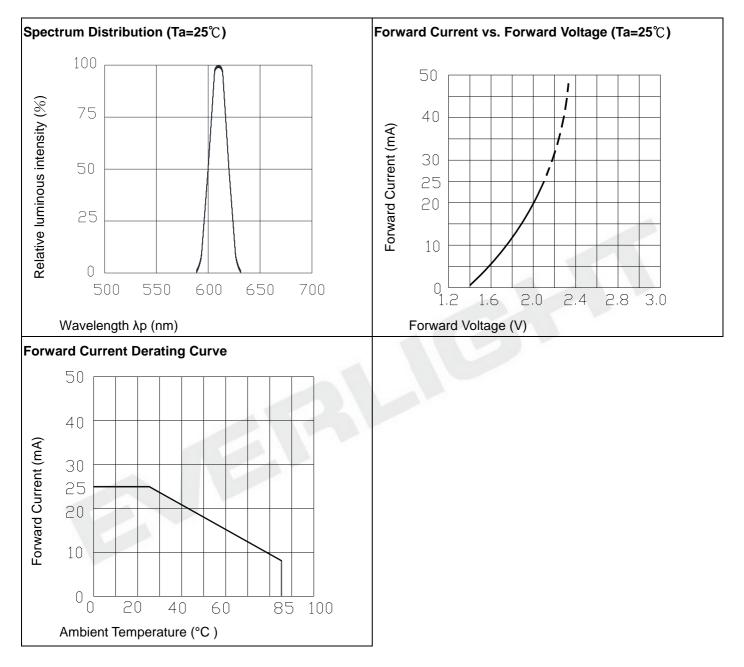
Note:

1. Luminous Intensity is a average value which be measured one 7-segment.

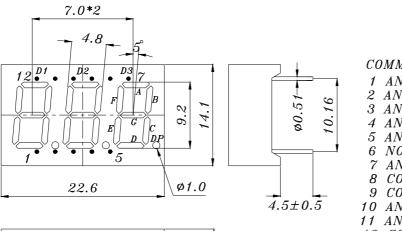
2. Tolerance of Luminous Intensity: ± 10 %

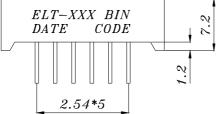
3. Tolerance of Forward Voltage: ± 0.1V

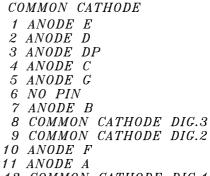
# **Typical Electro-Optical Characteristics Curves**



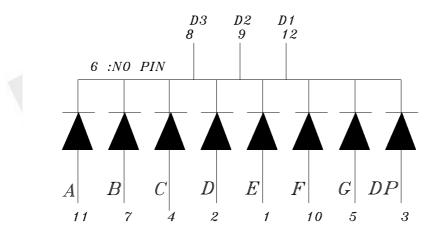
# Package Dimension & Internal Circuit Diagram







12 COMMON CATHODE DIG.1

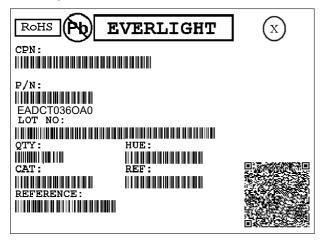


Note: Tolerances unless mentioned  $\pm 0.25$ mm. Unit = mm

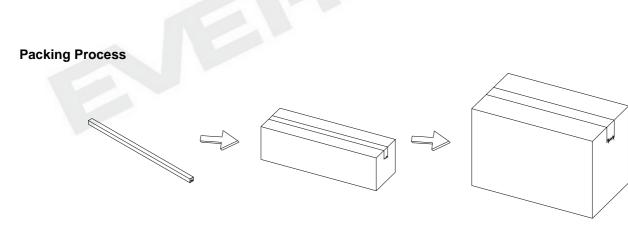


#### **Packing Materials**

Label Explanation



- CPN: Customer's Product Number
- P/N: Product Number
- QTY: Packing Quantity
- CAT: Luminous Intensity Rank
- HUE: Reference
- REF: Reference
- LOT No: Lot Number
- REFERENCE: Volume Label code



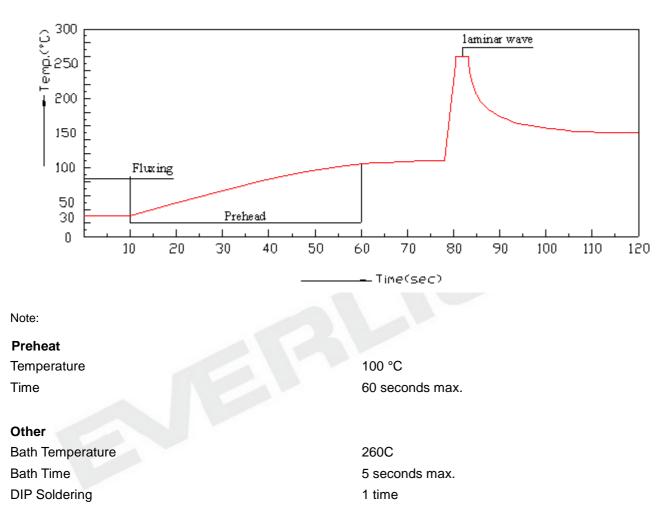
22 PCS/Tube

64 Tubes/Box

4 Boxes/Carton

## **Precautions for Use**

- 1. Soldering Condition
  - 1.1 Maximum Body Case Temperature Profile for evaluation of DIP Soldering Profile



All parameters are maximum body case temperature values and cannot be considered as a soldering profile. The body case temperature was measured by soldering a thermal couple to the soldering point of LEDs.

#### 2. Soldering Iron

Each terminal is to go to the tip of soldering iron temperature less than  $350^{\circ}$ C for 3 seconds within once in less than the soldering iron capacity 25W. Leave two seconds and more intervals, and do soldering of each terminal. Be careful because the damage of the product is often started at the time of the hand solder.

#### DISCLAIMER

- 1. EVERLIGHT reserves the right(s) on the adjustment of product material mix for the specification.
- 2. The Product meet EVERLIGHT published specification for a period of twelve(12) months from date of shipment.
- 3. The graphs shown in this datasheet are representing typical data only and do not show guaranteed values.
- 4. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from the use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
- 5. These specification sheets include materials protected under copyright of EVERLIGHT. Reproduction in any form is prohibited without obtaining EVERLIGHT's prior consent.
- 6. This product is not intended to be used for military, aircraft, automotive, medical, life sustaining or life saving applications or any other application which can result in human injury or death. Please contact authorized Everlight sales agent for special application request.
- 7. ESD (Electrostatic Discharge)
  - The products are sensitive to static electricity or surge voltage. ESD can damage a die and its reliability. When handling the products, the following measures against electrostatic discharge are strongly recommended:
    - Eliminating the charge
    - Grounded wrist strap, ESD footwear, clothes, and floors
    - Grounded workstation equipment and tools
    - ESD table/shelf mat made of conductive materials
  - Proper grounding is required for all devices, equipment, and machinery used in product assembly. Surge protection should be considered when designing of commercial products.
  - If tools or equipment contain insulating materials such as glass or plastic,

the following measures against electrostatic discharge are strongly recommended:

Dissipating static charge with conductive materials

- Preventing charge generation with moisture
- Neutralizing the charge with ionizers
- The LEDs should be operated with forward bias. The driving circuit must be designed so that the LEDs are not subjected to forward or reverse voltage while it is off. If reverse voltage is continuously applied to the LEDs, it may cause migration resulting in LED damage.