





# **AND180HAP**

# InGaAIP High Brightness Amber Light Emission T-1 3/4 Package (5 mm)

#### **Features**

- New emission material (InGaAIP) amber LED
- Peak wavelength (λp = 612 nm) high bright emission
- All plastic mold type, clear colorless lens
- Low drive current, (forward current = 1 to 20 mA)
- Excellent On-Off contrast ratio
- Fast response time, capable of pulse operation
- High power luminous intensity
- Suitable for Outdoor Message Signboards

## Maximum Ratings (T = 25°C)

Characteristics	Symbol	Rating	Unit
Forward Current	I <sub>F</sub>	50	mA
Reverse Voltage	V <sub>R</sub>	4	V
Power Dissipation	P <sub>D</sub>	125	mW
Operating Temperature Range	T <sub>Opr</sub>	-40 to 85	°C
Storage Temperature Range	T <sub>Stg</sub>	-40 to 120	°C

### **Electro-Optical Characteristics (T = 25°C)**

Characteristics	Symbol	Test Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 20 mA	-	2.1	2.5	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 4 V	-	_	50	μA
Luminous Intensity	I <sub>V</sub>	I <sub>F</sub> = 20 mA	3,200	7,000	_	mcd
Peak Emission Wavelength	Ι <sub>Ρ</sub>	I <sub>F</sub> = 20 mA	-	612	-	nm
Spectral Line Half Width	Δλ	I <sub>F</sub> = 20 mA	-	15	-	nm
Dominant Wavelength	λd	I <sub>F</sub> = 20 mA	_	605	_	nm
Full Viewing Angle	θ	I <sub>V</sub> = 1/2 Peak	-	8	-	degree

#### Precaution

Please be careful of the following:

- 1. Soldering temperature: 260°C max
  - Soldering time: 3 sec. max
  - Soldering portion of lead: up to 2 mm from the body of the device
- 2. The lead can be formed up to 5 mm from the body of the device without forming stress. Soldering should be performed after the lead forming.















