Kingbright

T-1 (3mm) SOLID STATE LAMP

L-7104ID-12V HIGH EFFICIENCY RED

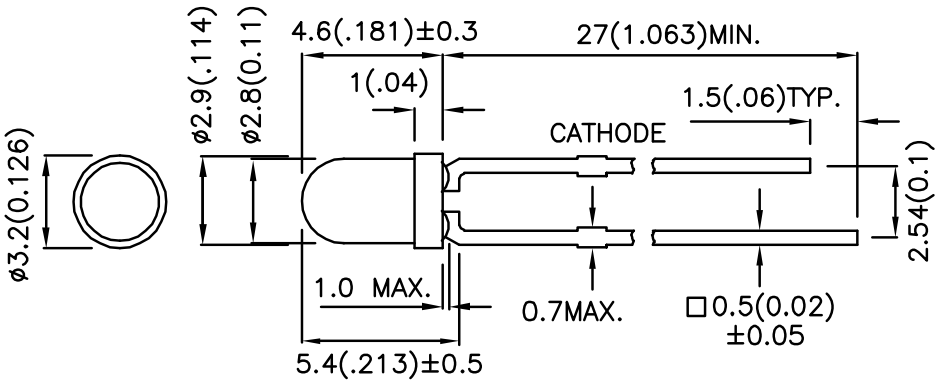
Features

- LOW POWER CONSUMPTION.
- POPULAR T-1 DIAMETER PACKAGE.
- GENERAL PURPOSE LEADS.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- AVAILABLE ON TAPE AND REEL.
- 12V INTERNAL RESISTOR.
- RoHS COMPLIANT.

Description

The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

Package Dimensions



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

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Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) V= 12V		Viewing Angle
			Min.	Typ.	2θ1/2
L-7104ID-12V	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	20	40°

Note:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

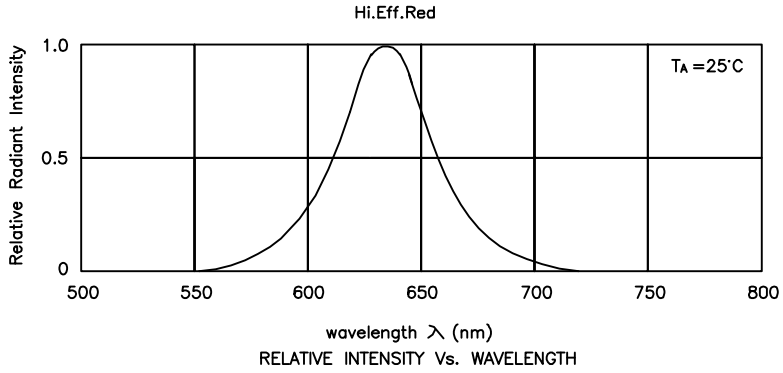
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red	627		nm	V_F=12V
λD	Dominant Wavelength	High Efficiency Red	625		nm	V_F=12V
Δλ1/2	Spectral Line Half-width	High Efficiency Red	45		nm	V_F=12V
I_F	Forward Current	High Efficiency Red	8.5	11.5	mA	V_F=12V
I_R	Reverse Current	High Efficiency Red		10	uA	V_R= 5V

Absolute Maximum Ratings at T_A=25°C

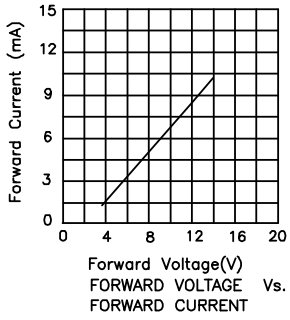
Parameter	High Efficiency Red	Units
Power dissipation	120	mW
Forward Voltage	14	V
Reverse Voltage	5	V
Operating Temperature	-40°C To +70°C	
Storage Temperature	-40°C To +85°C	
Lead Solder Temperature[1]	260°C For 3 Seconds	
Lead Solder Temperature[2]	260°C For 5 Seconds	

Notes:
1. 2mm below package base.
2. 5mm below package base.

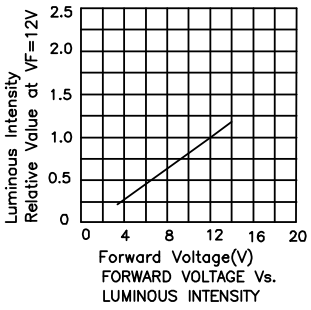


RELATIVE INTENSITY Vs. WAVELENGTH

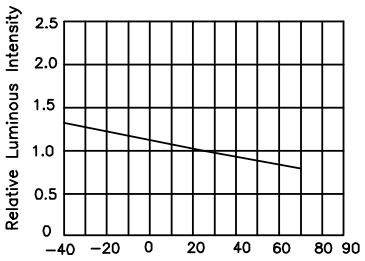
High Efficiency Red **L-7104ID-12V**



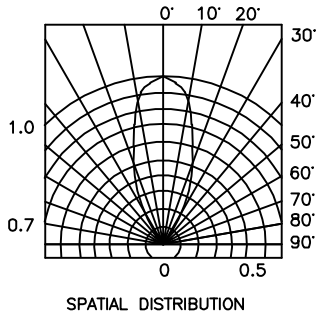
FORWARD VOLTAGE Vs. FORWARD CURRENT



FORWARD VOLTAGE Vs. LUMINOUS INTENSITY



LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

Remarks:

If special sorting is required (e.g. binning based on luminous intensity, or wavelength),

the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm

2. Luminous Intensity: +/-15%

Note: Accuracy may depend on the sorting parameters.