

L7104Ix HIGH EFFICIENCY RED	L7104Gx GREEN
L7104Ex ORANGE	L7104Yx YELLOW
L7104Nx PURE ORANGE	L7104PGx PURE GREEN

### Features

- HIGH INTENSITY.
- LOW POWER CONSUMPTION.
- POPULAR T-1 DIAMETER PACKAGE.
- GENERAL PURPOSE LEADS.
- RELIABLE AND RUGGED.
- LONG LIFE - SOLID STATE RELIABILITY.
- AVAILABLE ON TAPE AND REEL.

### Description

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

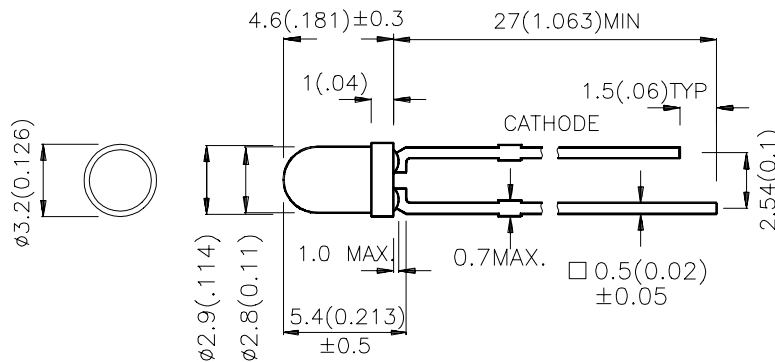
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode.

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

The Pure Green source color devices are made with Gallium Phosphide Pure Green Light Emitting Diode.

### Package Dimensions



#### Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is  $\pm 0.25(0.01)$  unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

## Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10 mA		Viewing Angle
			Min.	Typ.	2θ1/2
L7104ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	25	40°
L7104IT		RED TRANSPARENT	20	60	34°
L7104EC		WATER CLEAR	20	60	34°
L7104ED	ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	8	20	40°
L7104GD	GREEN (GaP)	GREEN DIFFUSED	8	20	40°
L7104GT		GREEN TRANSPARENT	20	60	34°
L7104GC		WATER CLEAR	20	60	34°
L7104YD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	15	40°
L7104YT		YELLOW TRANSPARENT	8	20	34°
L7104YC		WATER CLEAR	8	20	34°
L7104ND	PURE ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	8	30	40°
L7104NT		ORANGE TRANSPARENT	20	50	34°
L7104NC		WATER CLEAR	20	50	34°
L7104PGD	PURE GREEN (GaP)	GREEN DIFFUSED	2	5	40°
L7104PGT		GREEN TRANSPARENT	3	15	34°
L7104PGC		WATER CLEAR	3	15	34°

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<sub>A</sub>=25°C

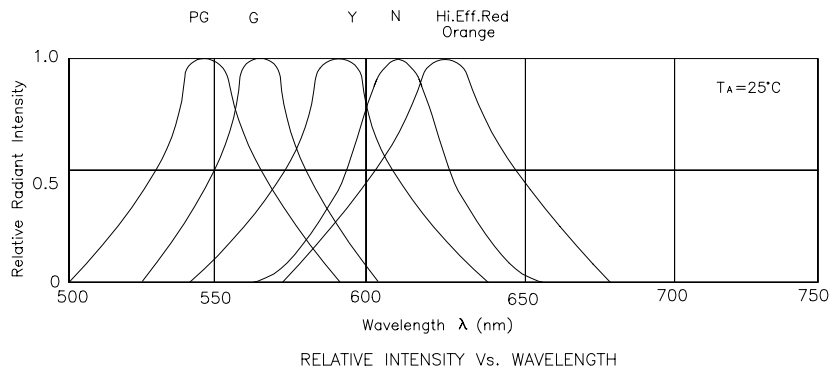
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ <sub>peak</sub>	Peak Wavelength	High Efficiency Red Orange Green Yellow Pure Orange Pure Green	627 627 565 590 607 555		nm	IF=20mA
λ <sub>D</sub>	Dominate Wavelength	High Efficiency Red Orange Green Yellow Pure Orange Pure Green	625 625 568 588 610 555		nm	IF=20mA
Δλ <sub>1/2</sub>	Spectral Line Halfwidth	High Efficiency Red Orange Green Yellow Pure Orange Pure Green	45 45 30 35 35 30		nm	IF=20mA
C	Capacitance	High Efficiency Red Orange Green Yellow Pure Orange Pure Green	15 15 15 20 15 45		pF	VF=0V;f=1MHz
V <sub>F</sub>	Forward Voltage	High Efficiency Red Orange Green Yellow Pure Orange Pure Green	2.0 2.0 2.2 2.1 2.05 2.25	2.5 2.5 2.5 2.5 2.5 2.5	V	IF=20mA
I <sub>R</sub>	Reverse Current	All		10	uA	VR = 5V

## Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

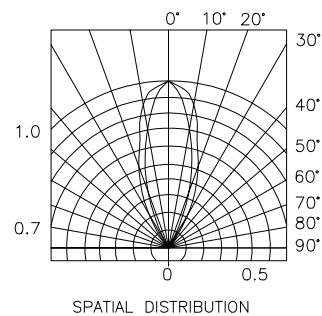
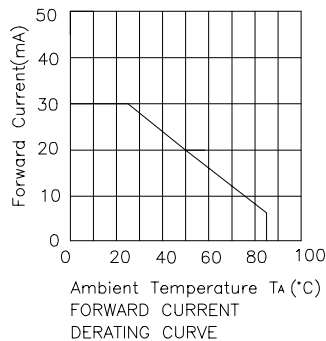
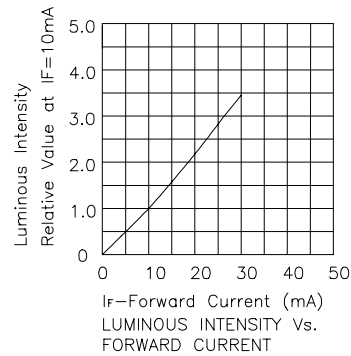
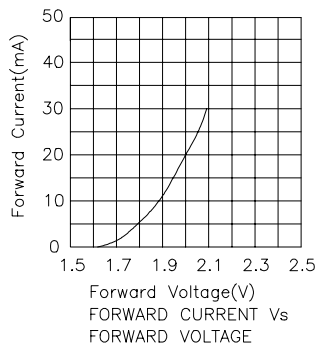
Parameter	High Efficiency Red	Orange	Green	Yellow	Pure Orange	Pure Green	Units
Power dissipation	105	105	105	105	105	105	mW
DC Forward Current	30	30	25	30	30	25	mA
Peak Forward Current [1]	160	160	140	140	145	135	mA
Reverse Voltage	5	5	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C						
Lead Soldering Temperature [2]	260°C For 5 Seconds						

Notes:

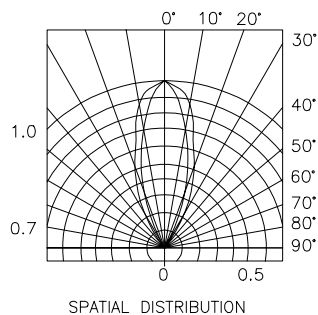
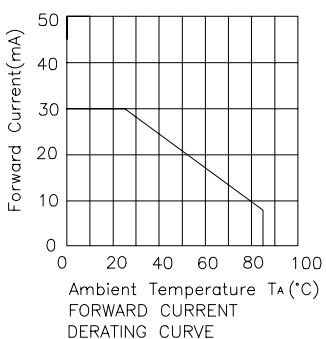
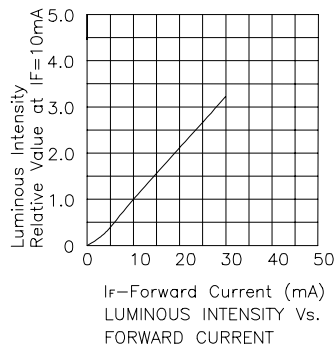
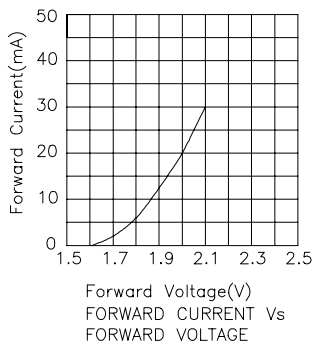
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



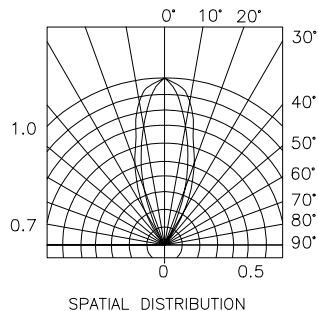
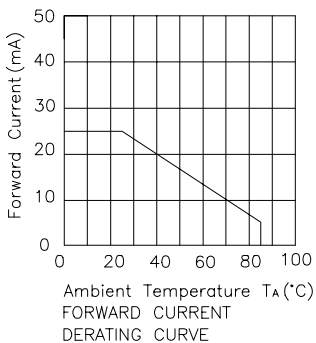
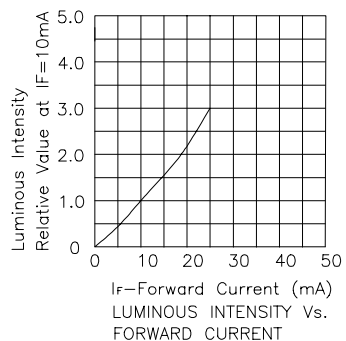
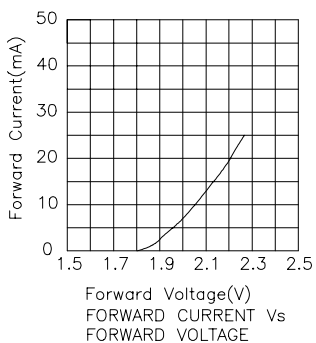
## High Efficiency Red L7104ID,L7104IT



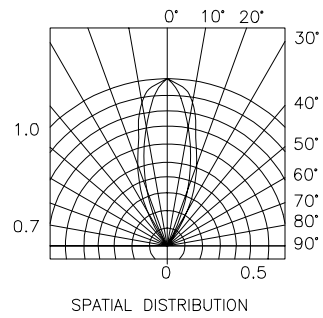
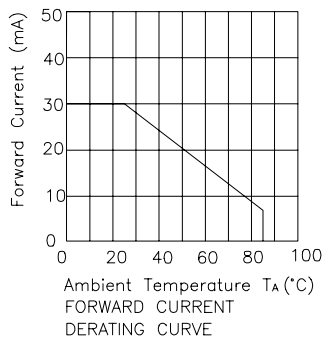
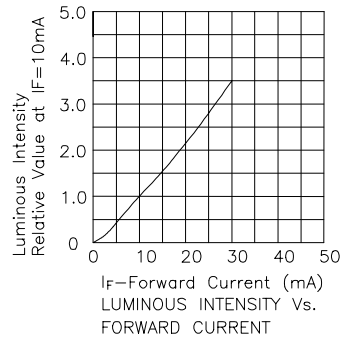
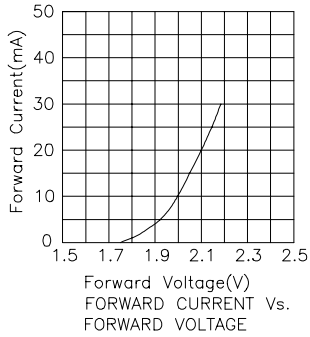
## High Efficiency Red L7104EC Orange L7104ED



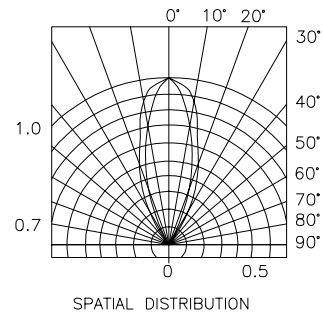
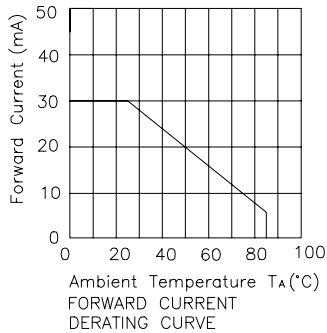
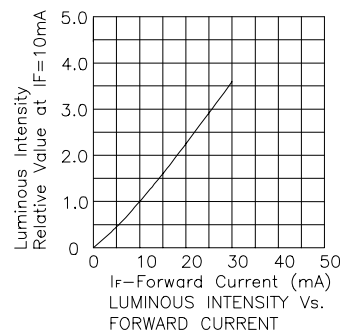
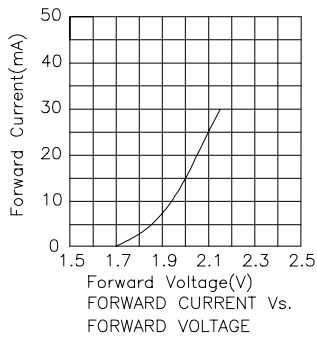
## Green L7104GD,L7104GC,L7104GT



## Yellow L7104YD,L7104YC,L7104YT



## Pure Orange L7104ND,L7104NC,L7104NT



## Pure Green L7104PGD,L7104PGC,L7104PGT

