

L7113Ix HIGH EFFICIENCY RED	L7113Gx GREEN
L7113EC HIGH EFFICIENCY RED	L7113ED ORANGE
L7113Nx PURE ORANGE	L7113Yx YELLOW
L7113PGx 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.

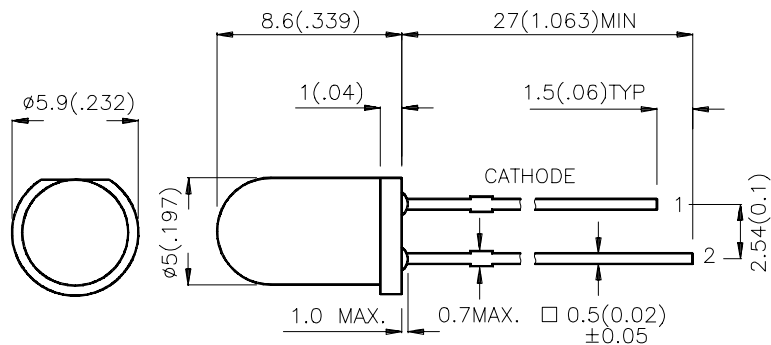
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

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 ±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
L7113ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	25	30°
L7113IT		RED TRANSPARENT	30	80	20°
L7113EC		WATER CLEAR	30	80	20°
L7113ED	ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	8	30	30°
L7113GD	GREEN (GaP)	GREEN DIFFUSED	5	20	30°
L7113GT		GREEN TRANSPARENT	20	60	20°
L7113GC		WATER CLEAR	20	60	20°
L7113YD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	20	30°
L7113YT		YELLOW TRANSPARENT	20	40	20°
L7113YC		WATER CLEAR	20	40	20°
L7113ND	PURE ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	12	30	30°
L7113NT		ORANGE TRANSPARENT	50	80	20°
L7113NC		WATER CLEAR	50	80	20°
L7113PGD	PURE GREEN (GaP)	GREEN DIFFUSED	2	5	30°
L7113PGT		GREEN TRANSPARENT	5	10	20°
L7113PGC		WATER CLEAR	5	10	20°

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

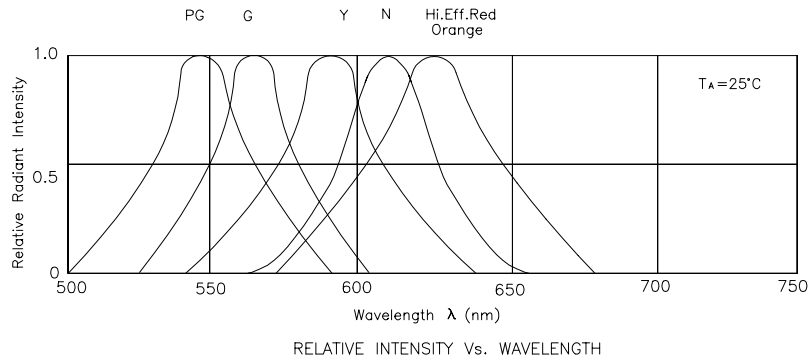
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	High Efficiency Red Orange Green Yellow Pure Orange Pure Green	627 627 565 590 607 555		nm	IF=20mA
λ _D	Dominate Wavelength	High Efficiency Red Orange Green Yellow Pure Orange Pure Green	625 625 568 588 610 555		nm	IF=20mA
Δλ _{1/2}	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 _F	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 _r	Reverse Current	All		10	uA	VR = 5V

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

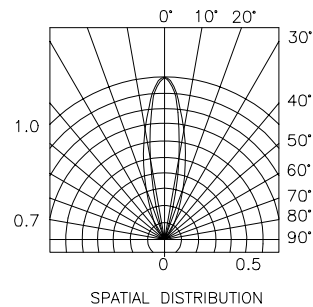
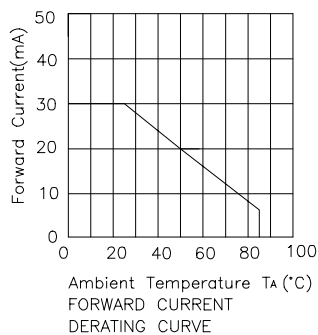
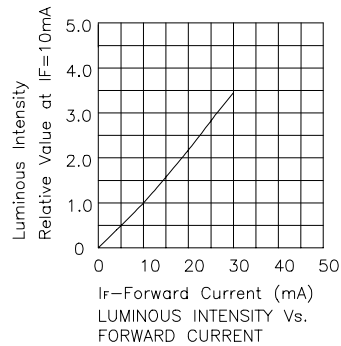
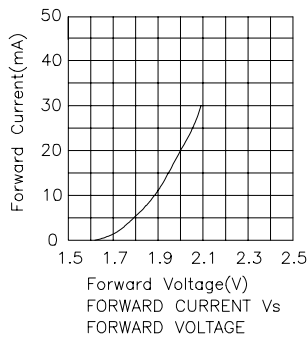
Parameter	High Efficiency Red	Orange	Green	Yellow	Pure Orange	Pure Green	Units
Power dissipation	105	105	105	105	105	105	mW
DC Forward Current	30	30	25	30	30	25	mA
Peak Forward Current [1]	160	160	140	140	145	135	mA
Reverse Voltage	5	5	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C						
Lead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

Notes:

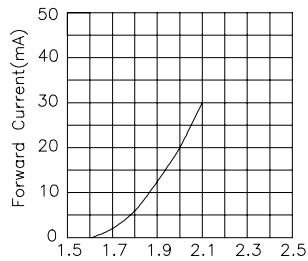
- 1/10 Duty Cycle, 0.1ms Pulse Width.
- 4mm below package base.



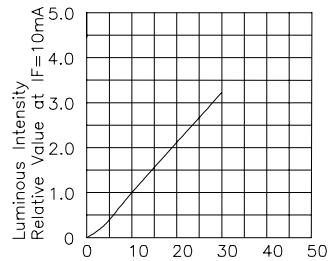
High Efficiency Red L7113ID,L7113IT



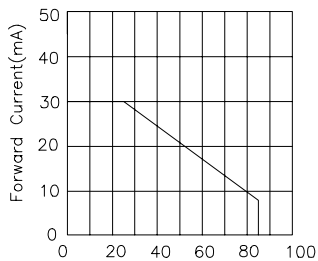
High Efficiency Red L7113EC Orange L7113ED



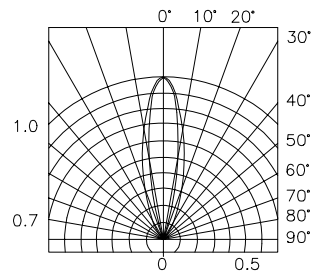
Forward Voltage(V)
FORWARD CURRENT Vs
FORWARD VOLTAGE



IF-Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

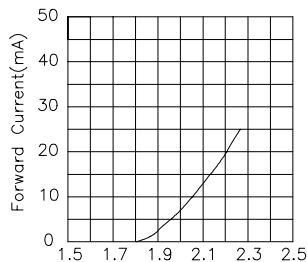


Ambient Temperature TA (°C)
FORWARD CURRENT
DERATING CURVE

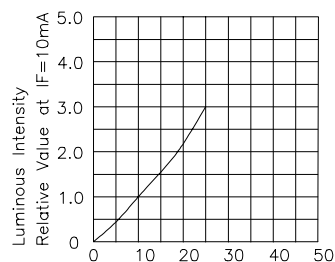


SPATIAL DISTRIBUTION

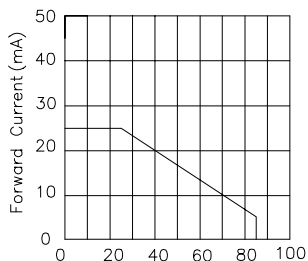
Green L7113GD, L7113GC, L7113GT



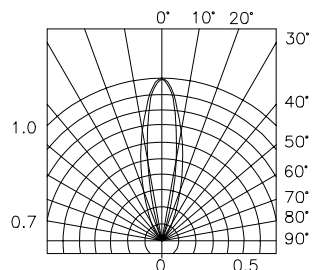
Forward Voltage(V)
FORWARD CURRENT Vs
FORWARD VOLTAGE



IF-Forward Current (mA)
LUMINOUS INTENSITY Vs.
FORWARD CURRENT

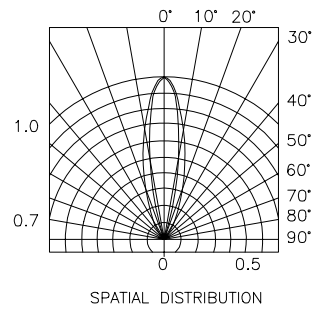
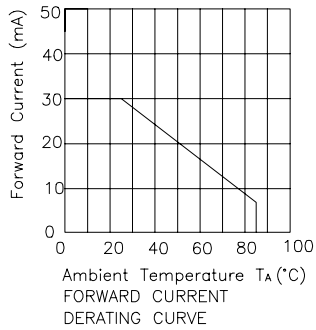
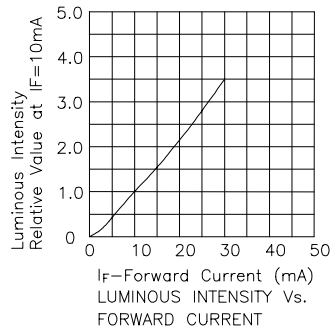
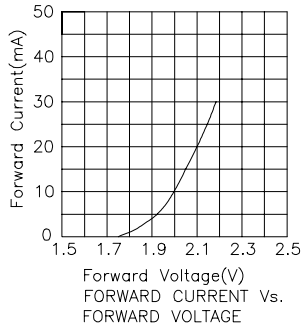


Ambient Temperature TA (°C)
FORWARD CURRENT
DERATING CURVE

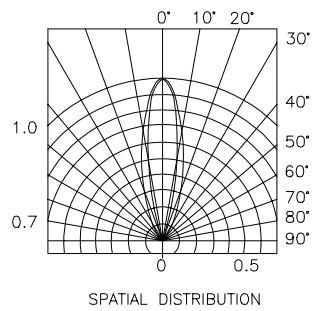
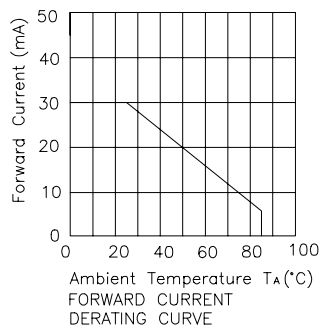
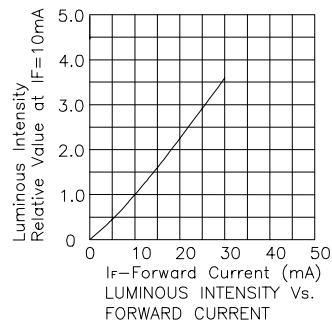
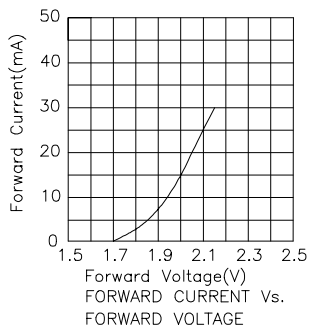


SPATIAL DISTRIBUTION

Yellow L7113YD,L7113YC,L7113YT



Pure Orange L7113ND,L7113NC,L7113NT



Pure Green L7113PGD,L7113PGC,L7113PGT

