L-1154Gx GREEN
L-1154Yx YELLOW
L-1154Ix HIGH EFFICIENCY RED
L-1154PGx PURE GREEN
L-1154Nx PURE ORANGE

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

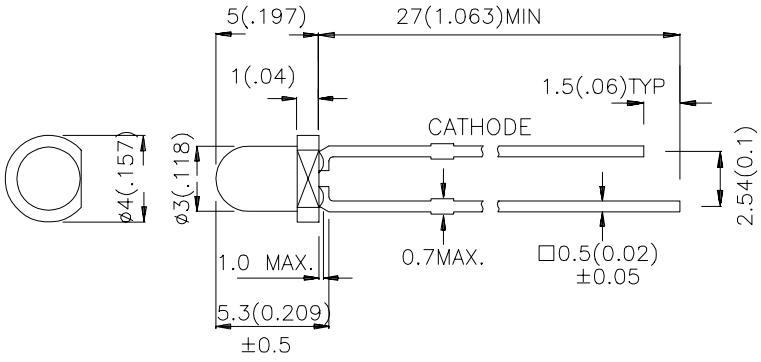
The Green source color devices are made with Gallium Phosphide Green Light Emitting Diode.

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
L-1154ID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	25	60°
L-1154IT		RED TRANS.	20	60	50°
L-1154GD	GREEN (GaP)	GREEN DIFFUSED	8	15	60°
L-1154GT		GREEN TRANS.	20	40	50°
L-1154YD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	15	60°
L-1154YT		YELLOW TRANS.	8	20	50°
L-1154ND	PURE ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	8	30	60°
L-1154NT		ORANGE TRANS.	20	50	50°
L-1154PGD	PURE GREEN (GaP)	GREEN DIFFUSED	2	5	60°
L-1154PGT		GREEN TRANS.	3	10	50°

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

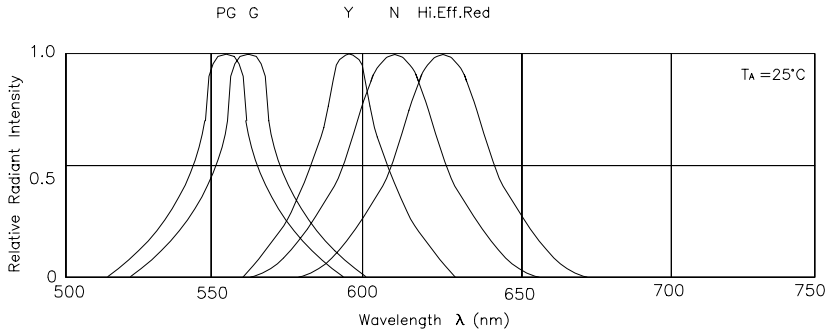
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	High Efficiency Red Green Yellow Pure Orange Pure Green	627 565 590 607 555		nm	IF=20mA
λD	Dominate Wavelength	High Efficiency Red Green Yellow Pure Orange Pure Green	625 568 588 610 555		nm	IF=20mA
Δλ1/2	Spectral Line Halfwidth	High Efficiency Red Green Yellow Pure Orange Pure Green	45 30 35 35 30		nm	IF=20mA
C	Capacitance	High Efficiency Red Green Yellow Pure Orange Pure Green	15 15 20 15 45		pF	VF=0V;f=1MHz
V_F	Forward Voltage	High Efficiency Red Green Yellow Pure Orange Pure Green	2.0 2.2 2.1 2.05 2.25	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=25ºC

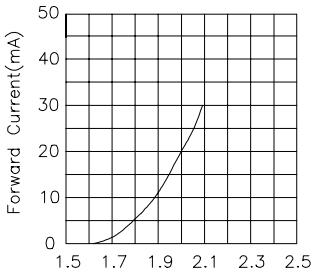
Parameter	High Efficiency Red	Green	Yellow	Pure Orange	Pure Green	Units
Power dissipation	105	105	105	105	105	mW
DC Forward Current	30	25	30	30	25	mA
Peak Forward Current [1]	160	140	140	145	135	mA
Reverse Voltage	5	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C					
Lead Solder Temperature [2]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

Notes:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.

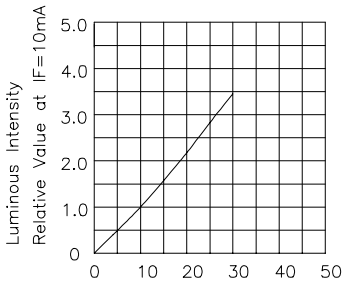


RELATIVE INTENSITY Vs. WAVELENGTH

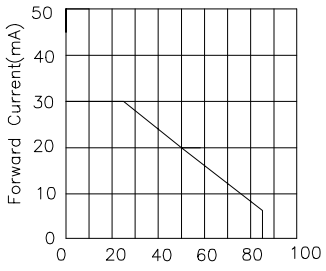
High Efficiency Red L-1154ID,L-1154IT



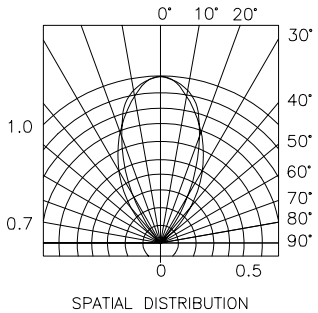
FORWARD CURRENT Vs
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

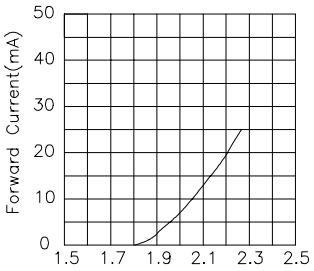


FORWARD CURRENT
DERATING CURVE

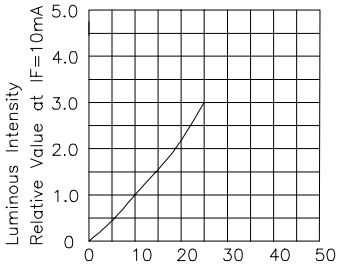


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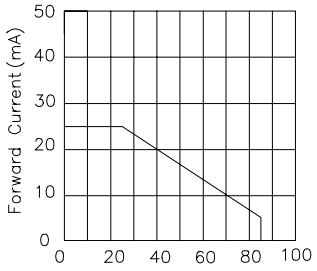
Green L-1154GD,L-1154GT



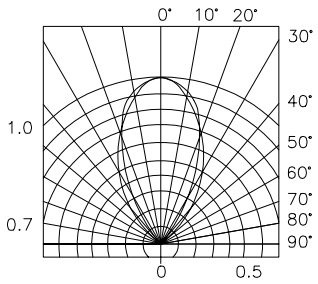
FORWARD CURRENT Vs
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

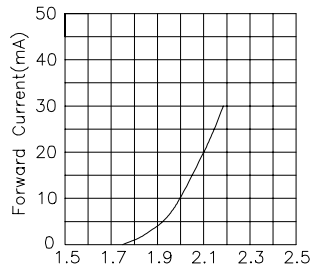


FORWARD CURRENT
DERATING CURVE

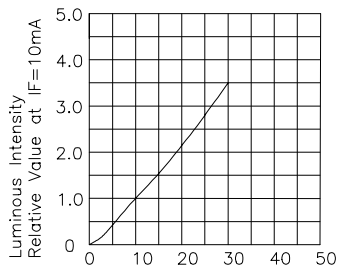


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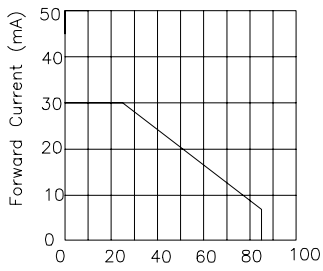
Yellow L-1154YD,L-1154YT



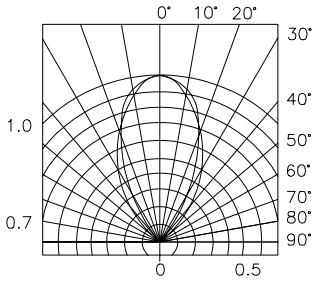
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

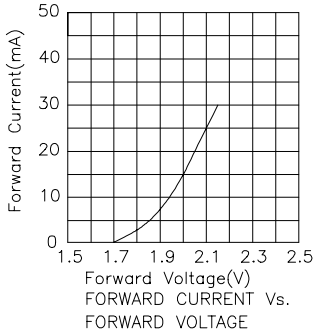


FORWARD CURRENT
DERATING CURVE

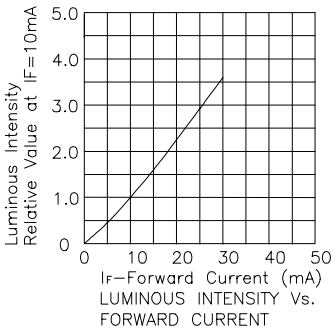


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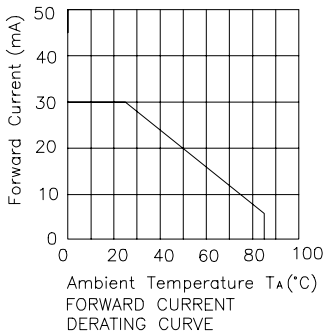
Pure Orange L-1154ND,L-1154NT



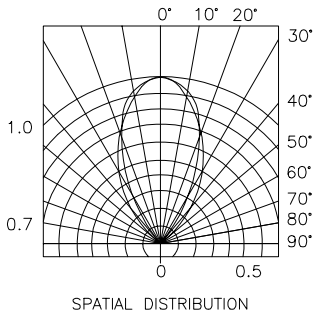
FORWARD CURRENT Vs.
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT

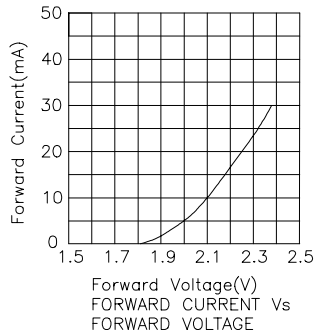


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DERATING CURVE

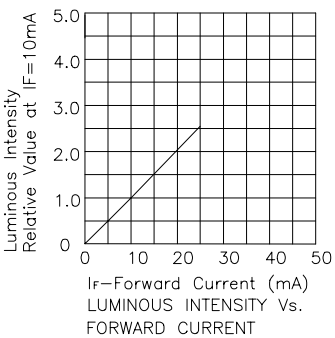


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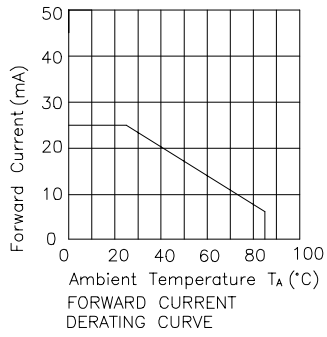
Pure Green L-1154PGD,L-1154PGT



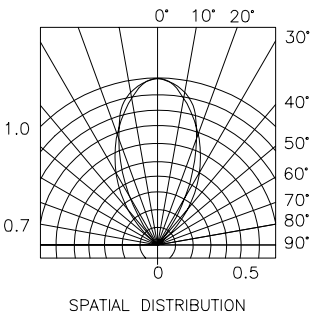
FORWARD CURRENT Vs
FORWARD VOLTAGE



LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



SPATIAL DISTRIBUTION