

### T-1 (3mm) SOLID STATE LAMPS

L132XG GREEN	L132XY YELLOW
L132XI HIGH EFFICIENCY RED	L132XPG PURE GREEN
L132XN PURE ORANGE	

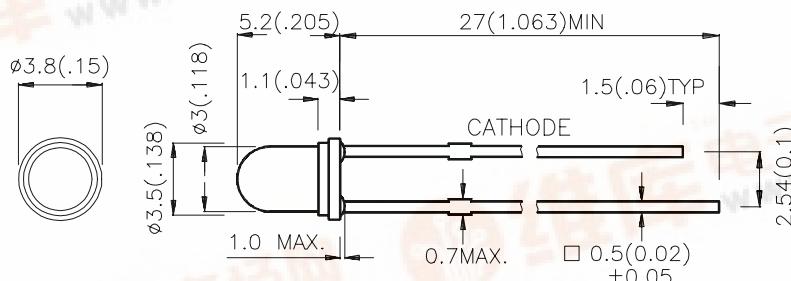
#### Features

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

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## Selection Guide

Part No.	Dice	Lens Type	I <sub>v</sub> (mcd) @ 10 mA		Viewing Angle θ <sub>1/2</sub>
			Min.	Typ.	
L132XID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	25	60°
L132XIT		RED TRANSPARENT	20	60	50°
L132XGD	GREEN (GaP)	GREEN DIFFUSED	8	15	60°
L132XGT		GREEN TRANSPARENT	20	40	50°
L132XGC		WATER CLEAR	20	40	50°
L132XYD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	5	15	60°
L132XYT		YELLOW TRANSPARENT	8	20	50°
L132XYC		WATER CLEAR	8	20	50°
L132XND	PURE ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	8	30	60°
L132XNT		ORANGE TRANSPARENT	20	50	50°
L132XNC		WATER CLEAR	20	50	50°
L132XPGD	PURE GREEN (GaP)	GREEN DIFFUSED	2	5	60°
L132XPGT		GREEN TRANSPARENT	3	10	50°
L132XPGC		WATER CLEAR	3	10	50°

Note:

1. θ<sub>1/2</sub> 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 Green Yellow Pure Orange Pure Green	627 565 590 607 555		nm	IF=20mA
λ D	Dominate Wavelength	High Efficiency Red Green Yellow Pure Orange Pure Green	625 568 588 610 555		nm	IF=20mA
Δλ <sub>1/2</sub>	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 <sub>F</sub>	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 <sub>R</sub>	Reverse Current	All		10	uA	VR = 5V

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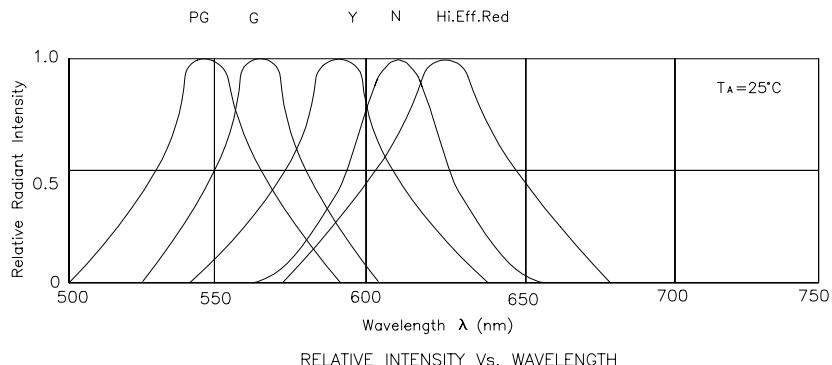
## Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

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:

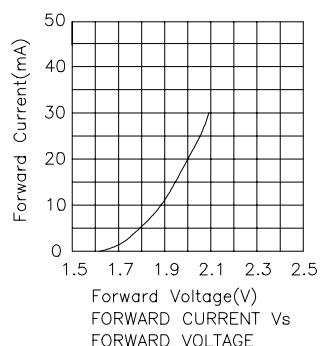
1. 1/10 Duty Cycle, 0.1ms Pulse Width.

2. 4mm below package base.

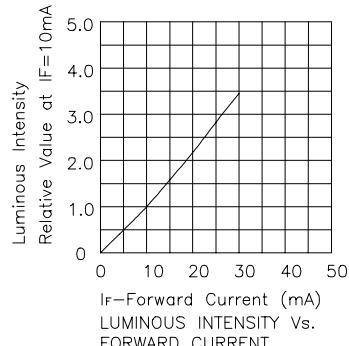


RELATIVE INTENSITY Vs. WAVELENGTH

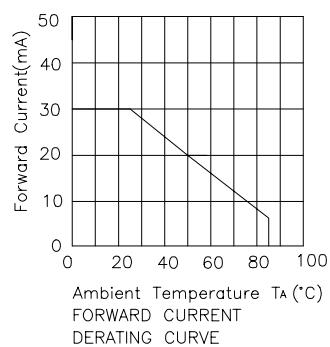
## High Efficiency Red L132XID,L132XIT



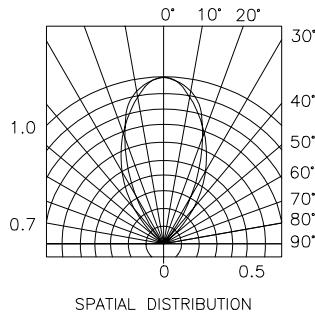
Forward Voltage(V)  
FORWARD CURRENT Vs  
FORWARD VOLTAGE



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



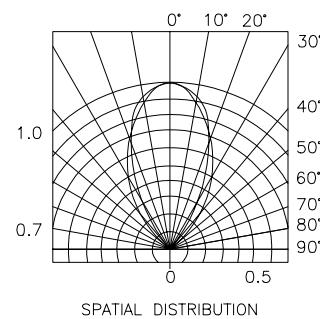
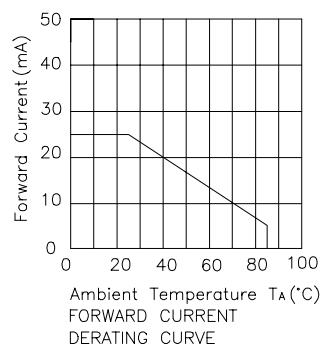
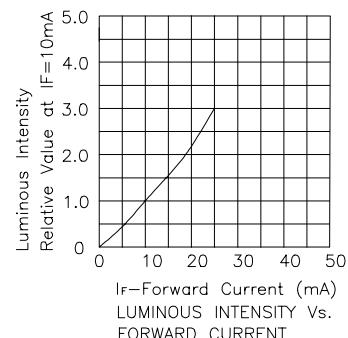
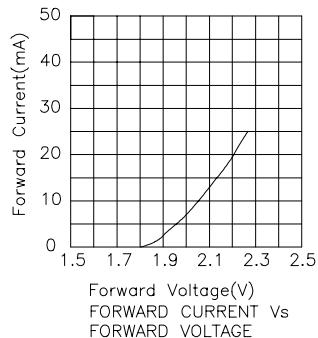
Ambient Temperature  $T_A$  (°C)  
FORWARD CURRENT  
DERATING CURVE



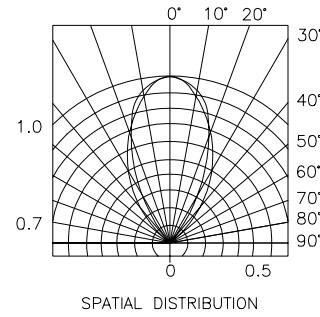
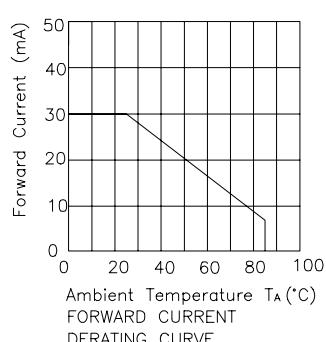
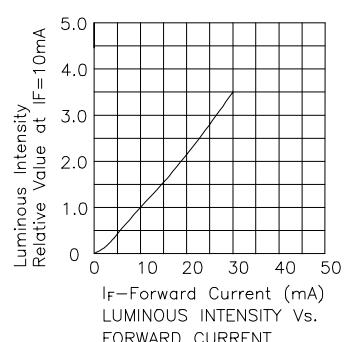
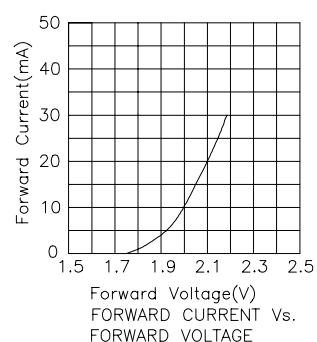
SPATIAL DISTRIBUTION

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## Green L132XGD,L132XGC,L132XGT

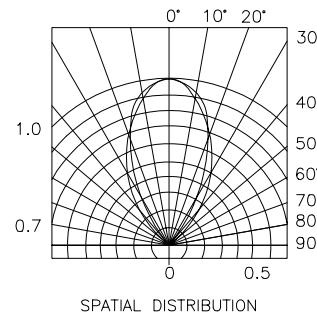
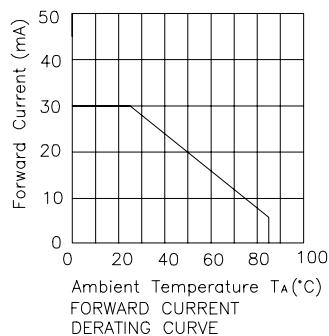
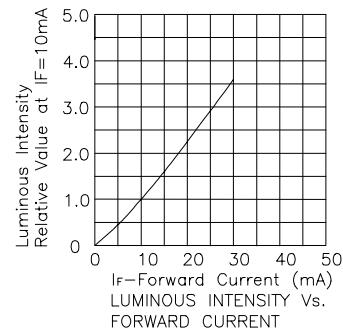
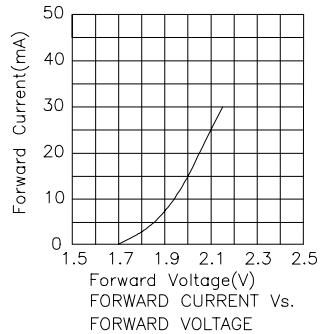


## Yellow L132XYD,L132XYC,L132XYT



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## Pure Orange L132XND,L132XNC,L132XNT



## Pure Green L132XPGD,L132XPGC,L132XPGT

