

Kingbright®

T-1 (3mm) ROUND LED LAMPS

L-132XH BRIGHT RED	L-132XG GREEN
L-132XI HIGH EFFICIENCY RED	L-132XY YELLOW
L-132XN PURE ORANGE	L-132XPG 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

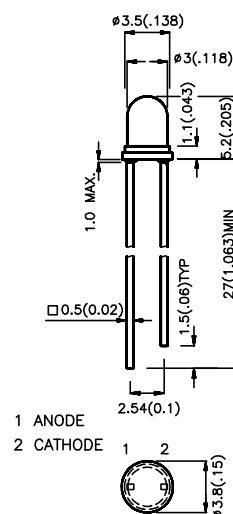
The Bright Red source color devices are made with Gallium Phosphide Red Light Emitting Diode.

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.

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 subjected to change without notice.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 10 mA		Viewing Angle 2 $\theta_{1/2}$
			Min.	Max.	
L-132XHD	BRIGHT RED (GaP)	RED DIFFUSED	1.3	5	60°
L-132XHT		RED TRANSPARENT	2	8	50°
L-132XID	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	8	50	60°
L-132XIT		RED TRANSPARENT	20	125	50°
L-132XGD	GREEN (GaP)	GREEN DIFFUSED	8	32	50°
L-132XGT		GREEN TRANSPARENT	20	80	60°
L-132XGC		WATER CLEAR	20	80	50°
L-132XYD	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	8	32	50°
L-132XYT		YELLOW TRANSPARENT	10	50	60°
L-132XYC		WATER CLEAR	10	50	50°
L-132XND	PURE ORANGE (GaAsP/GaP)	ORANGE DIFFUSED	8	50	50°
L-132XNT		ORANGE TRANSPARENT	20	125	60°
L-132XNC		WATER CLEAR	20	125	50°
L-132XPGD	PURE GREEN (GaP)	GREEN DIFFUSED	2	8	50°
L-132XPGT		GREEN TRANSPARENT	3.2	20	60°
L-132XPGC		WATER CLEAR	3.2	20	50°

Note:

1. $\theta_{1/2}$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

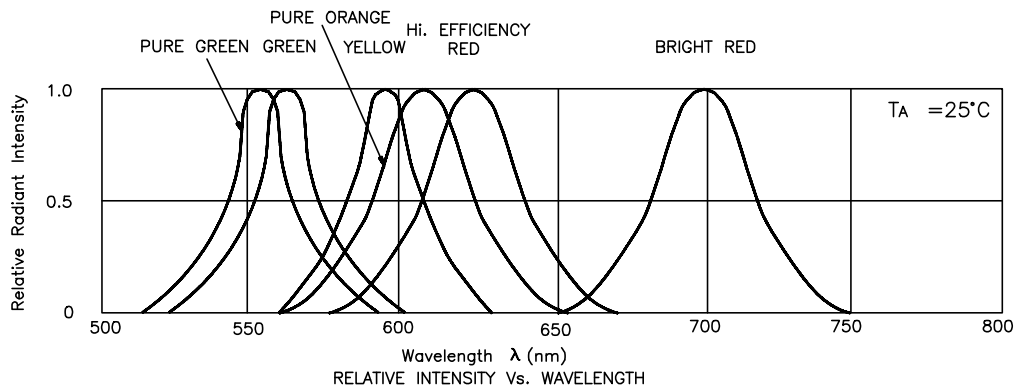
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Bright Red High Efficiency Red Green Yellow Pure Orange Pure Green	700 625 565 590 610 555		nm	IF=20mA
$\Delta\lambda_{1/2}$	Spectral Line Halfwidth	Bright Red High Efficiency Red Green Yellow Pure Orange Pure Green	45 45 30 35 35 30		nm	IF=20mA
C	Capacitance	Bright Red High Efficiency Red Green Yellow Pure Orange Pure Green	40 12 45 10 15 45		pF	VF=0V;f=1MHz
V _F	Forward Voltage	Bright Red High Efficiency Red Green Yellow Pure Orange Pure Green	2.0 2.0 2.2 2.1 2.0 2.25	2.5 2.5 2.5 2.5 2.6 2.6	V	IF=20mA
I _R	Reverse Current	All	10		uA	VR = 5V

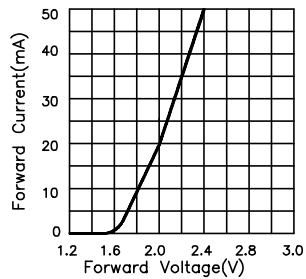
Absolute Maximum Ratings at T_A=25°C

Parameter	Bright Red	High Efficiency Red	Green	Yellow	Pure Orange	Pure Green	Units
Power dissipation	120	105	105	105	105	105	mW
DC Forward Current	25	30	25	30	30	25	mA
Peak Forward Current [1]	150	150	150	150	150	150	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						

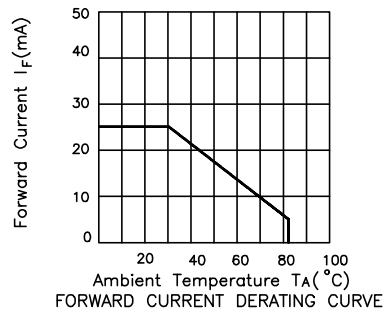
Notes:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



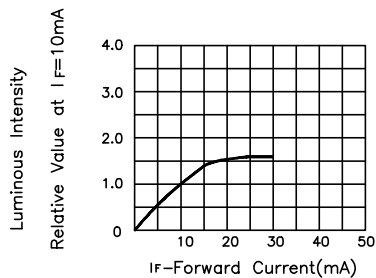
Bright Red L-132XHD, L-132XHT



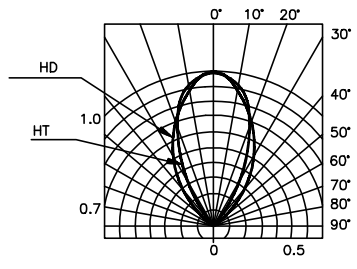
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

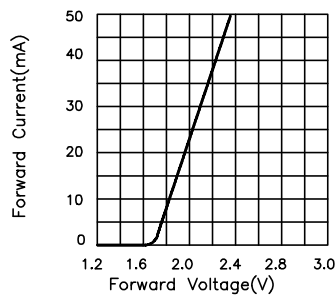


LUMINOUS INTENSITY Vs. FORWARD CURRENT

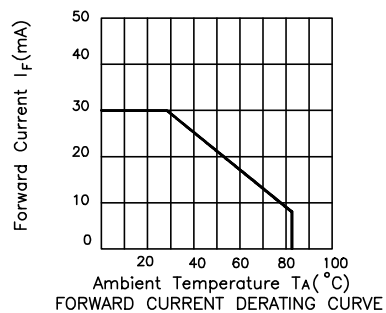


SPATIAL DISTRIBUTION

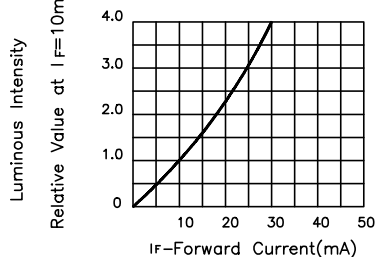
High Efficiency Red L-132XID, L-132XIT



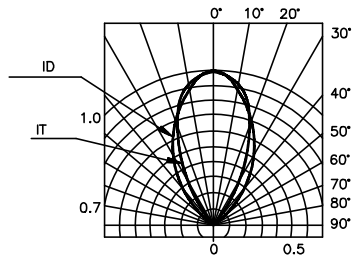
FORWARD CURRENT Vs. FORWARD VOLTAGE



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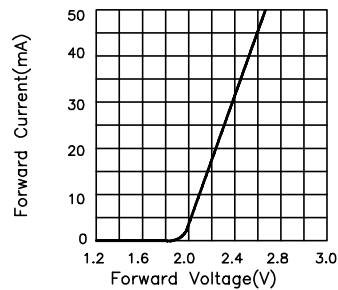


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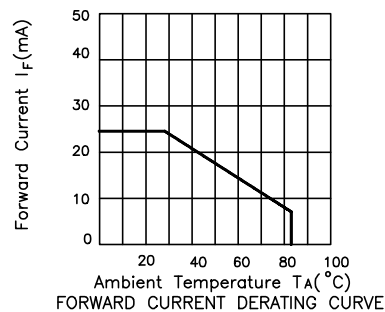


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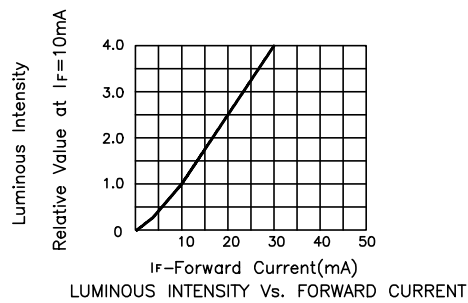
Green L-132XGD, L-132XGT, L-132XGC



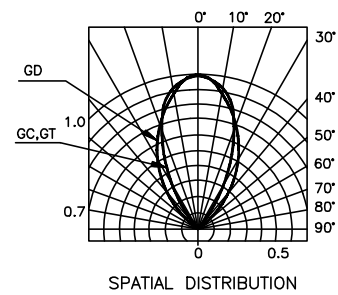
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

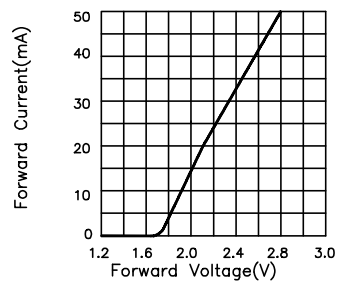


LUMINOUS INTENSITY Vs. FORWARD CURRENT

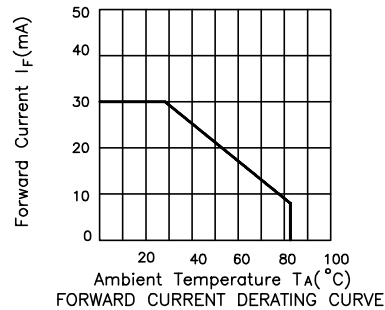


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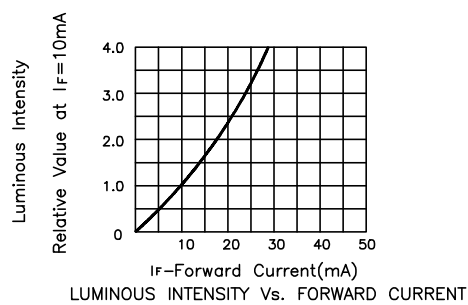
Yellow L-132XYD, L-132XYT, L-132XYC



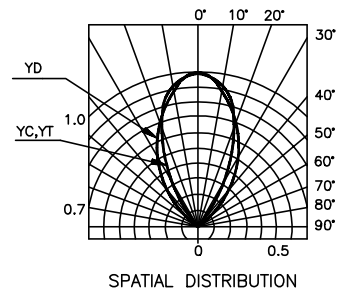
FORWARD CURRENT Vs. FORWARD VOLTAGE



FORWARD CURRENT DERATING CURVE

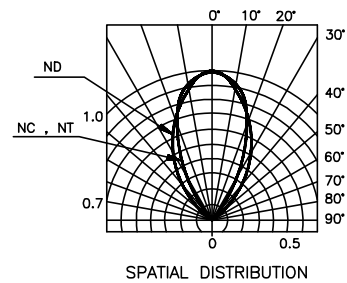
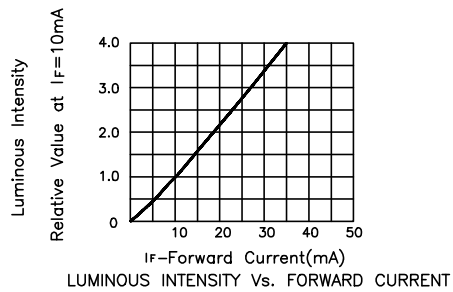
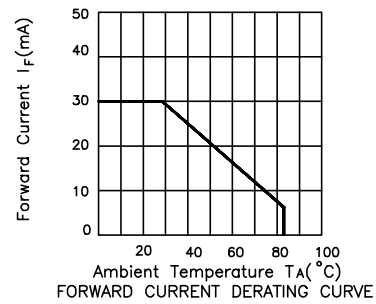
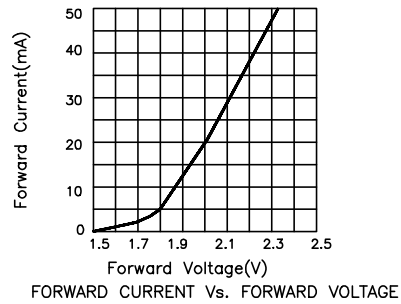


LUMINOUS INTENSITY Vs. FORWARD CURRENT



SPATIAL DISTRIBUTION

Pure Orange L-132XND, L-132XNT, L-132XNC



Pure Green L-132XPGD, L-132XPGT, L-132XPGC

