

L113HDTTNR254, L113HDTTNR5/86 BRIGHT RED
 L113IDTTNR254, L113IDTTNR5/86 HIGH EFFICIENCY RED
 L113GDTTNR254, L113GDTTNR5/86 GREEN
 L113YDTTNR254, L113YDTTNR5/86 YELLOW
 L113SRDTTNR254, L113SRDTTNR5/86 SUPER BRIGHT RED

Features

- FOR THE USE OF AUTOMATIC INSERTION MACHINE.
- 5mm FORMED LEAD AND 2.54 STRAIGHT LEAD.
- LED LAMPS ALSO AVAILABLE IN TAPE & REEL PACKAGE.

Description

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

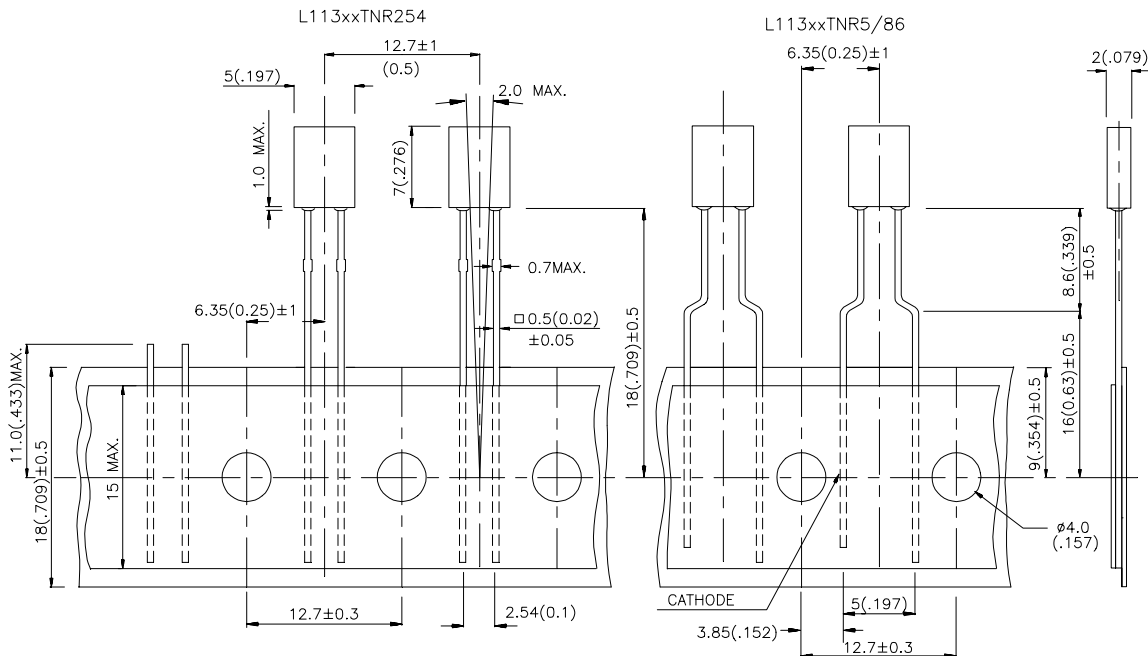
The High Efficiency Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode.

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 Super Bright Red source color devices are made with Gallium Aluminum Arsenide Red 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 *20mA		Viewing Angle
			Min.	Typ.	θ1/2
L113HDTTNR254	BRIGHT RED (GaP)	RED DIFFUSED	0.5	1	110°
L113HDTTNR5/86					
L113IDTTNR254	HIGH EFFICIENCY RED (GaAsP/GaP)	RED DIFFUSED	3	5	110°
L113IDTTNR5/86					
L113GDTTNR254	GREEN (GaP)	GREEN DIFFUSED	2	5	110°
L113GDTTNR5/86					
L113YDTTNR254	YELLOW (GaAsP/GaP)	YELLOW DIFFUSED	1	4	110°
L113YDTTNR5/86					
L113SRDTTNR254	SUPER BRIGHT RED (GaAlAs)	RED DIFFUSED	*40	*80	110°
L113SRDTTNR5/86					

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

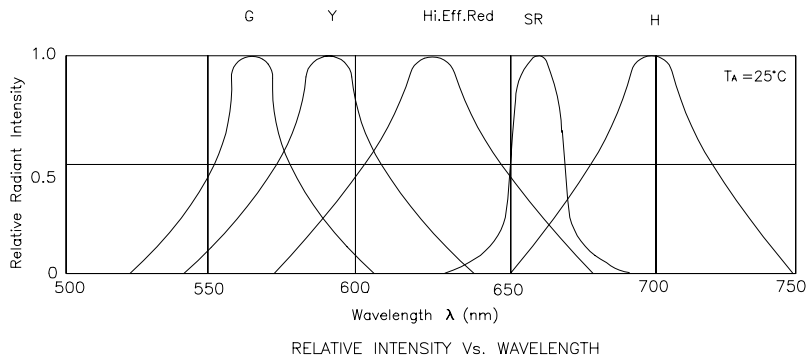
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	Bright Red High Efficiency Red Green Yellow Super Bright Red	700 627 565 590 660		nm	IF=20mA
λ _D	Dominate Wavelength	Bright Red High Efficiency Red Green Yellow Super Bright Red	660 625 568 588 640		nm	IF=20mA
Δλ _{1/2}	Spectral Line Halfwidth	Bright Red High Efficiency Red Green Yellow Super Bright Red	45 45 30 35 20		nm	IF=20mA
C	Capacitance	Bright Red High Efficiency Red Green Yellow Super Bright Red	40 15 15 20 45		pF	VF=0V;f=1MHz
V _F	Forward Voltage	Bright Red High Efficiency Red Green Yellow Super Bright Red	2.25 2.0 2.2 2.1 1.85	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 $T_A=25^\circ\text{C}$

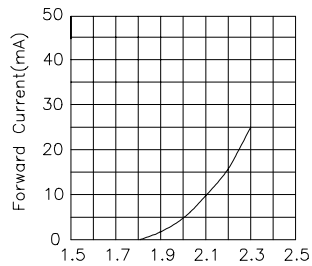
Parameter	Bright Red	High Efficiency Red	Green	Yellow	Super Bright Red	Units
Power dissipation	120	105	105	105	100	mW
DC Forward Current	25	30	25	30	30	mA
Peak Forward Current [1]	120	160	140	140	155	mA
Reverse Voltage	5	5	5	5	5	V
Operating/Storage Temperature	-40°C To +85°C					
Lead Solder Temperature [2]	260°C For 5 Seconds					

Notes:

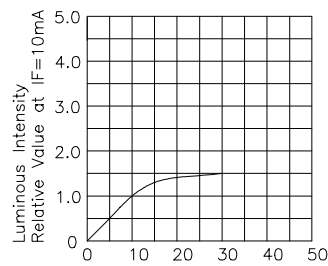
- 1/10 Duty Cycle, 0.1ms Pulse Width.
2. 4mm below package base.



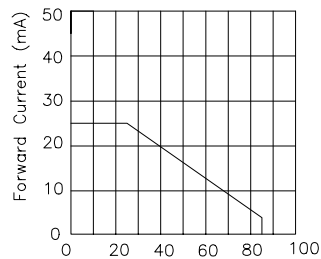
Bright Red L113HDTTNR254, L113HDTTNR5/86



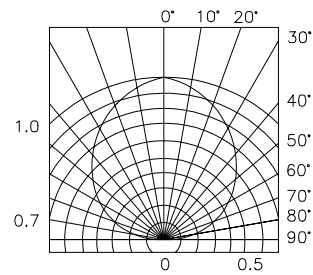
FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

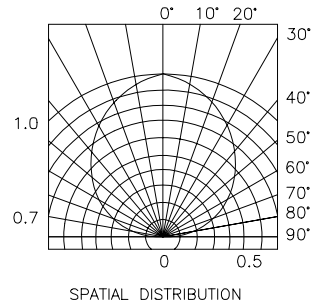
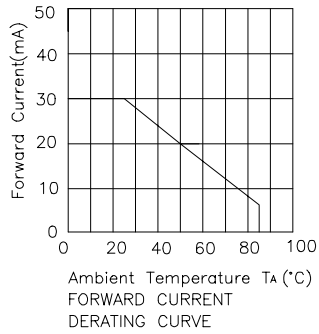
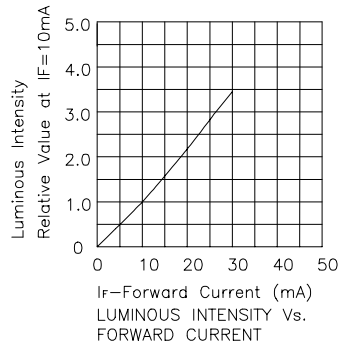
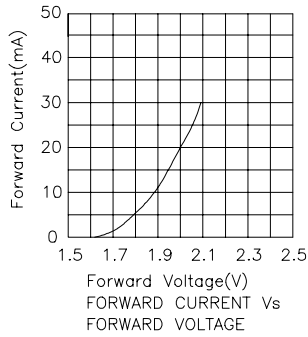


FORWARD CURRENT DERATING CURVE

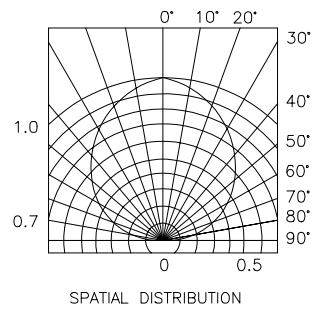
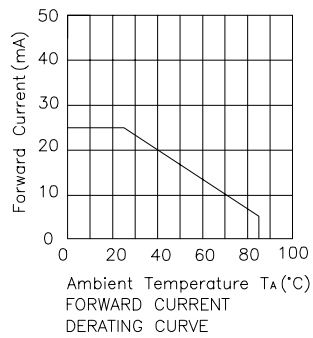
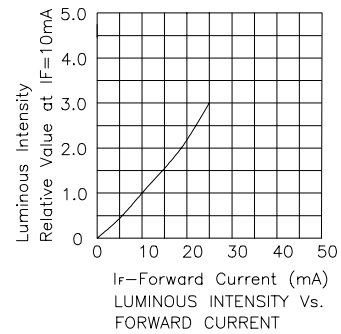
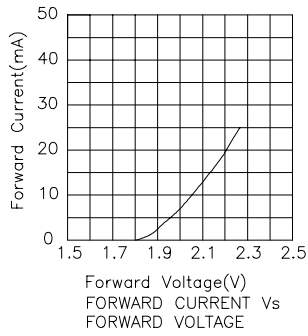


SPATIAL DISTRIBUTION

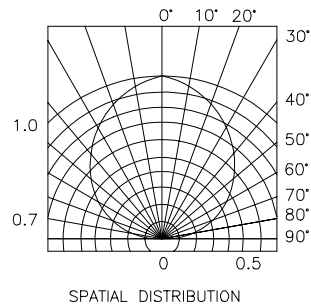
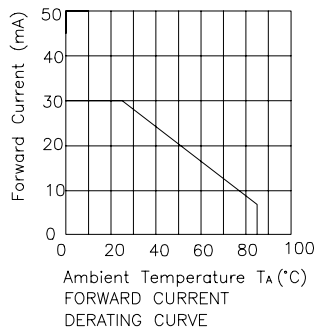
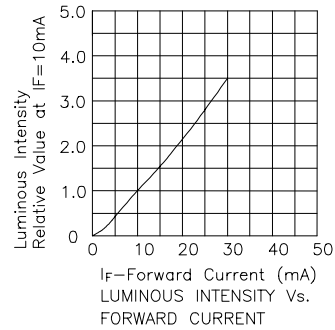
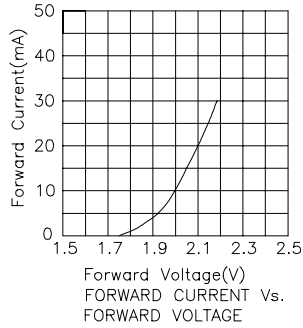
High Efficiency Red L113IDTTNR254, L113IDTTNR5/86



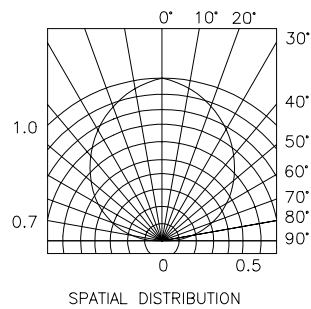
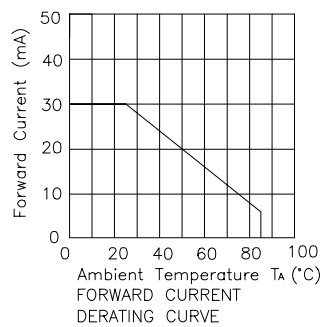
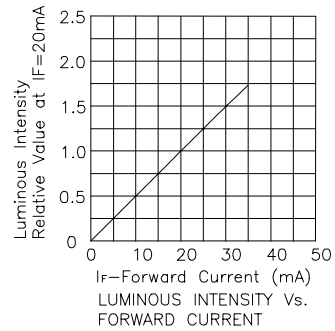
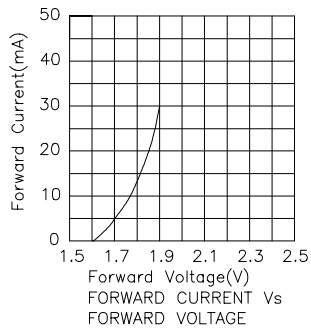
Green L113GDTTNR254, L113GDTTNR5/86



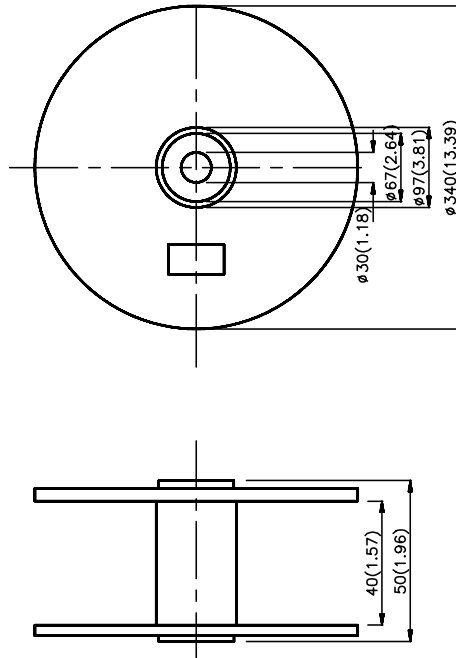
Yellow L113YDTTNR254, L113ADTTNR5/86



Super Bright Red L113SRDTTNR254, L113SRDTTNR5/86



Reel Dimensions



ANODE LEAD
LEAVES THE REEL FIRST

