

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

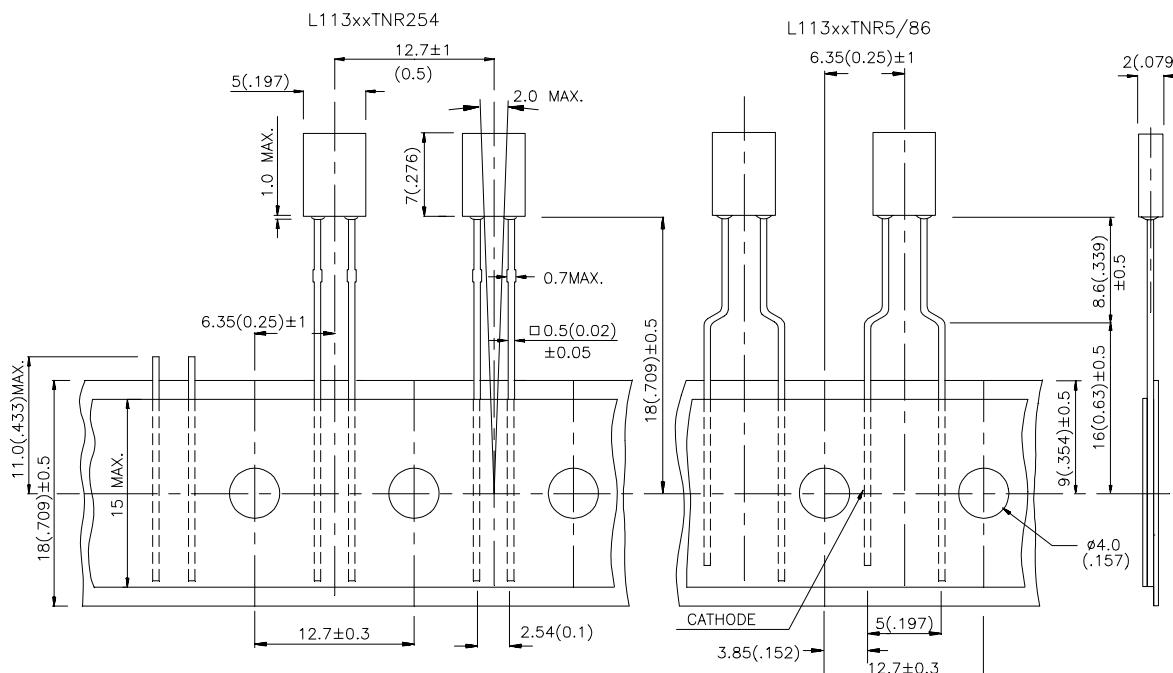
Features

- 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



Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) @ 10 mA *20mA | | Viewing Angle |
|-----------------|---------------------------------|-----------------|------------------------|------|---------------|
| | | | Min. | Typ. | |
| 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 TA=25°C

| Symbol | Parameter | Device | Typ. | Max. | Units | Test Conditions |
|----------------|-------------------------|--|-----------------------------------|---------------------------------|-------|-----------------|
| λpeak | 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 |
| Δλ1/2 | 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 |

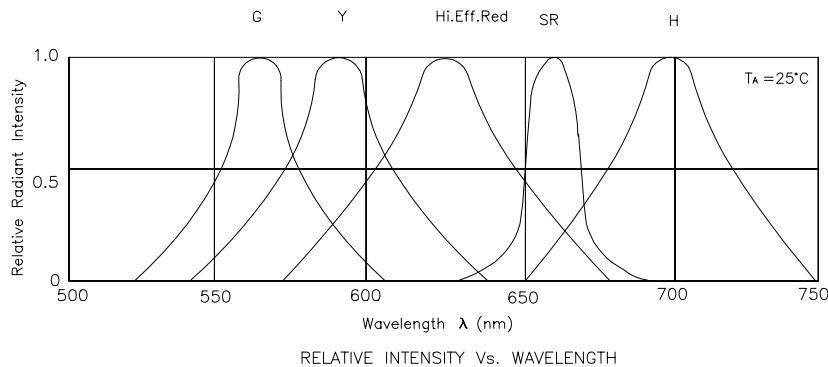
Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

| 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 | | | | | |

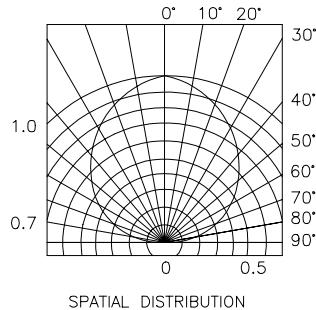
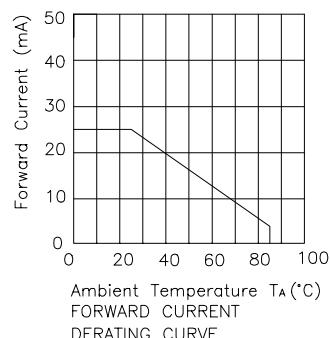
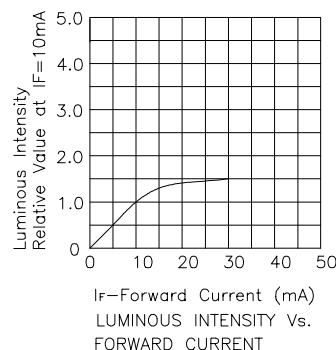
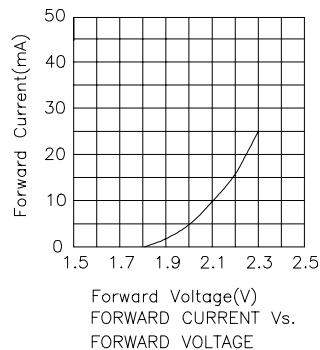
Notes:

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

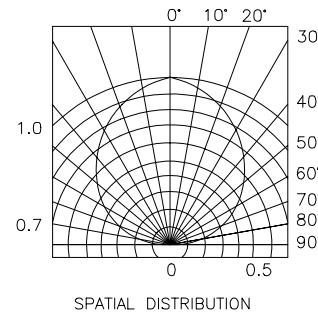
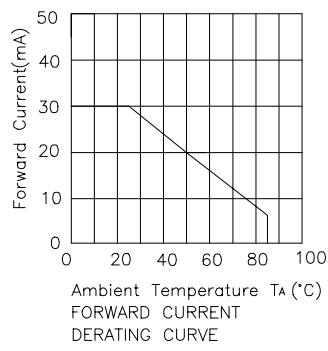
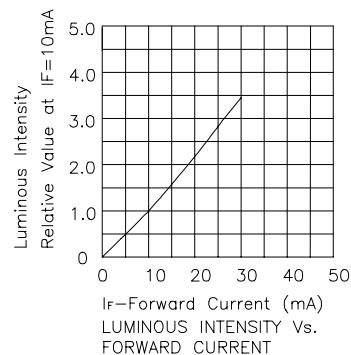
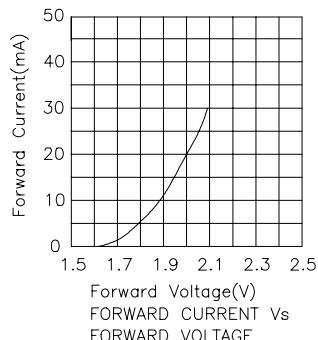
2. 4mm below package base.



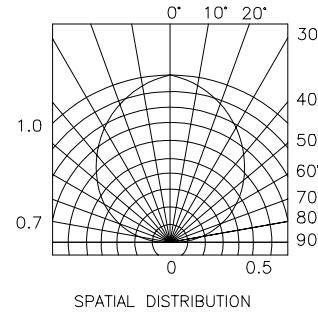
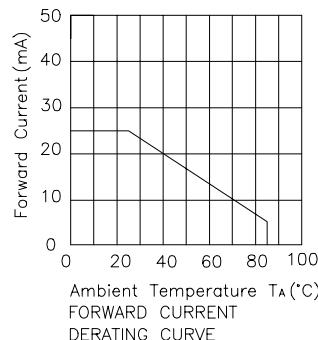
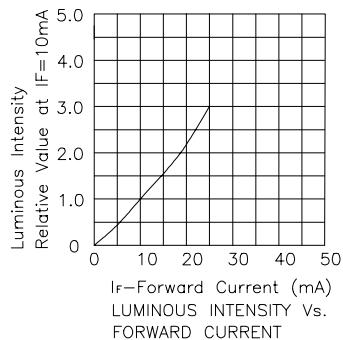
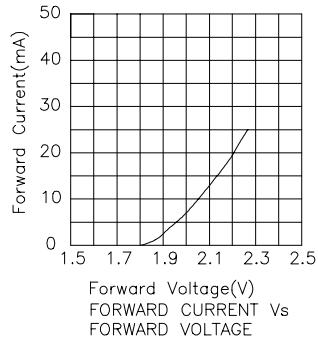
Bright Red L113HDTTNR254, L113HDTTNR5/86



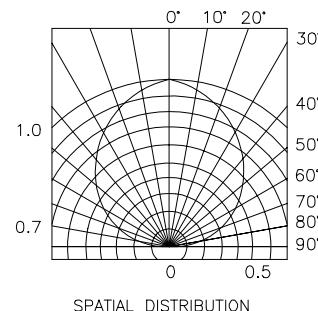
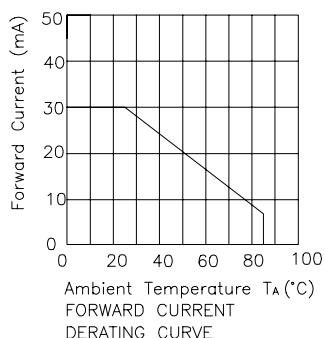
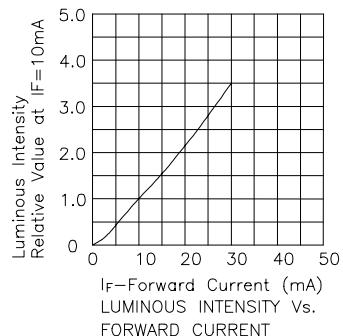
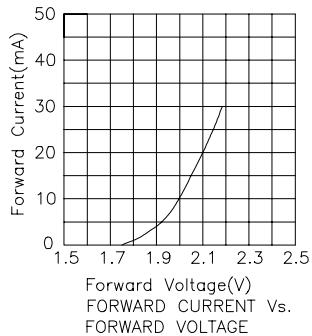
High Efficiency Red L113IDTTNR254, L113IDTTNR5/86



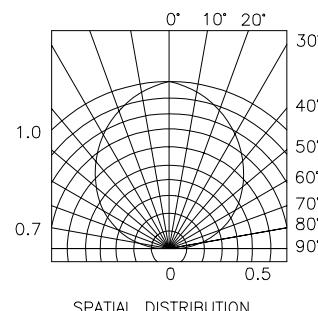
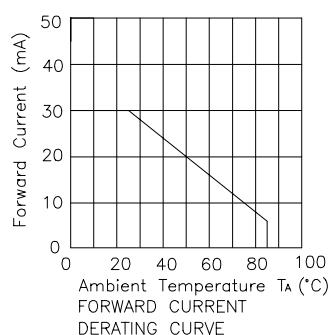
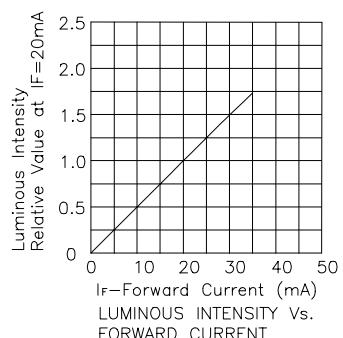
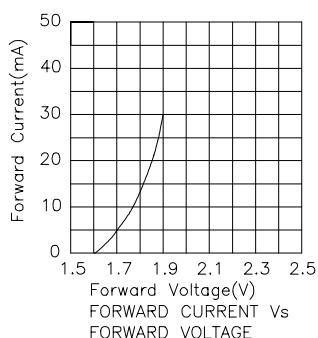
Green L113GDTTNR254, L113GDTTNR5/86



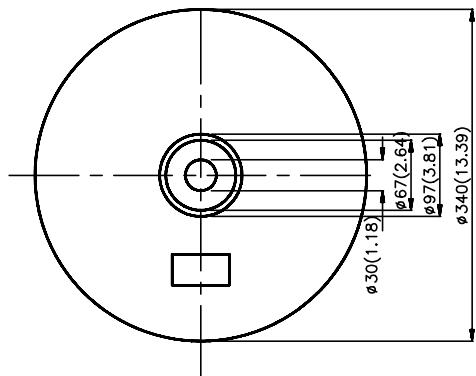
Yellow L113YDTTNR254, L113ADTTNR5/86



Super Bright Red L113SRDTTNR254, L113SRDTTNR5/86



Reel Dimensions



ANODE LEAD
LEAVES THE REEL FIRST

