

L53HDTNR254, L53HDTNR5/7 BRIGHT RED
L53IDTNR254, L53IDTNR5/7 HIGH EFFICIENCY RED
L53GDTNR254, L53GDTNR5/7 GREEN
L53YDTNR254, L53YDTNR5/7 YELLOW
L53ADTNR254, L53ADTNR5/7 YELLOW

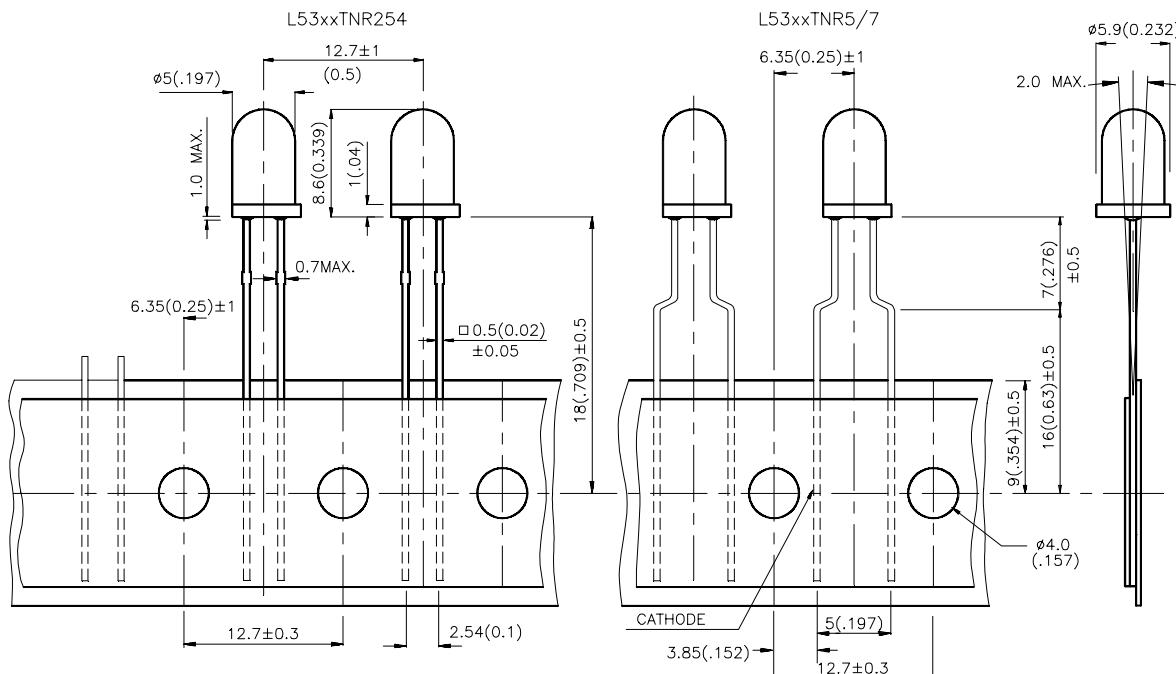
Features

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

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.

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 | I _v (mcd) @ 10 mA | | Viewing Angle |
|----------------------------|---------------------------------|-----------------|------------------------------|------|---------------|
| | | | Min. | Typ. | |
| L53HDTNR254 L53HDTNR5/7 | BRIGHT RED (GaP) | RED DIFFUSED | 2 | 5 | 60° |
| L53IDTNR254 L53IDTNR5/7 | HIGH EFFICIENCY RED (GaAsP/GaP) | RED DIFFUSED | 8 | 25 | 60° |
| L53GDTNR254 L53GDTNR5/7 | GREEN (GaP) | GREEN DIFFUSED | 5 | 20 | 60° |
| L53YDTNR254 L53YDTNR5/7 | YELLOW (GaAsP/GaP) | YELLOW DIFFUSED | 5 | 20 | 60° |
| L53ADTNR254 L53ADTNR5/7 | YELLOW (GaAsP/GaP) | AMBER DIFFUSED | 5 | 20 | 60° |

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 | 700 627 565 590 | | nm | IF=20mA |
| λ D | Dominate Wavelength | Bright Red High Efficiency Red Green Yellow | 660 625 568 588 | | nm | IF=20mA |
| Δλ1/2 | Spectral Line Halfwidth | Bright Red High Efficiency Red Green Yellow | 45 45 30 35 | | nm | IF=20mA |
| C | Capacitance | Bright Red High Efficiency Red Green Yellow | 40 15 15 20 | | pF | VF=0V;f=1MHz |
| V _F | Forward Voltage | Bright Red High Efficiency Red Green Yellow | 2.25 2.0 2.2 2.1 | 2.5 2.5 2.5 2.5 | V | IF=20mA |
| I _R | Reverse Current | All | | 10 | uA | VR = 5V |

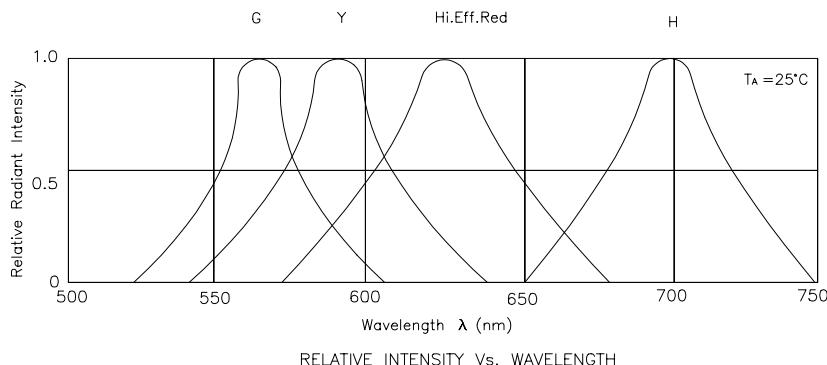
Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

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

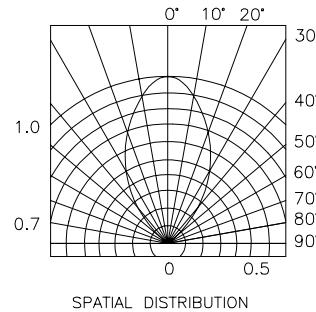
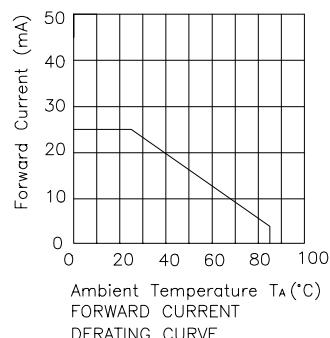
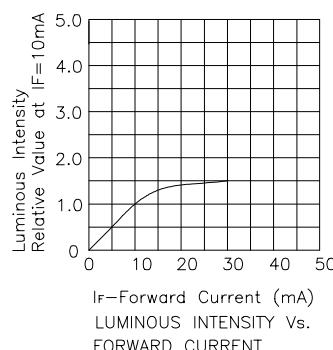
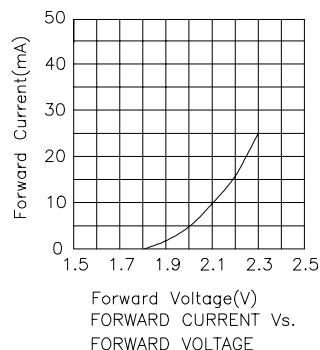
Notes:

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

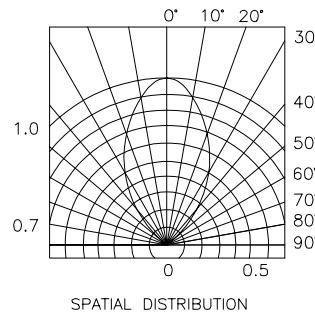
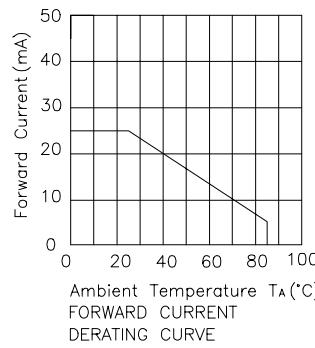
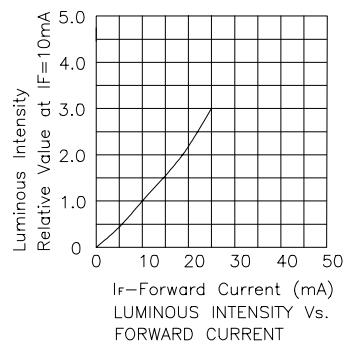
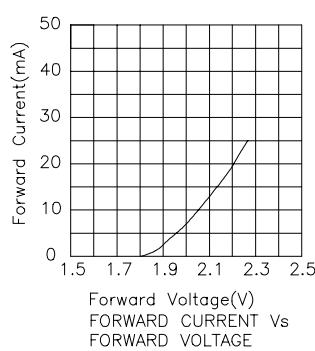
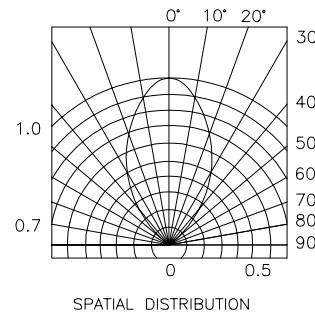
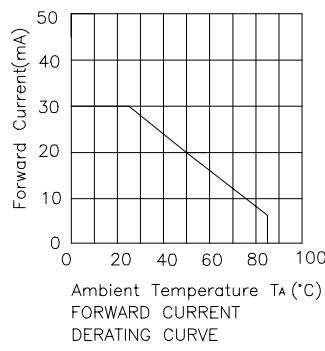
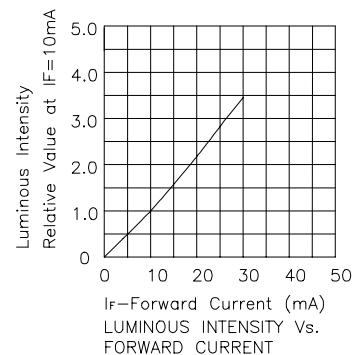
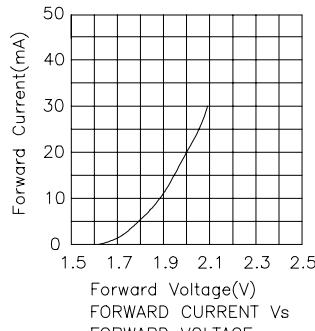
2. 4mm below package base.



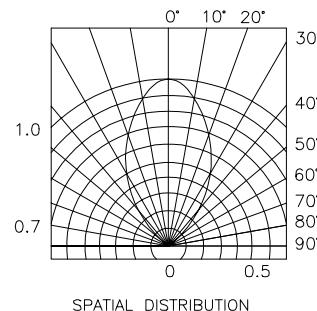
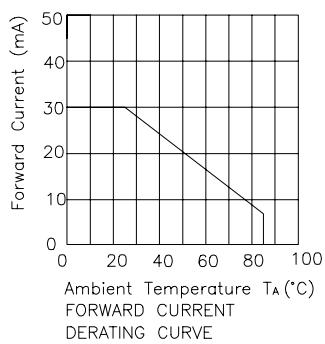
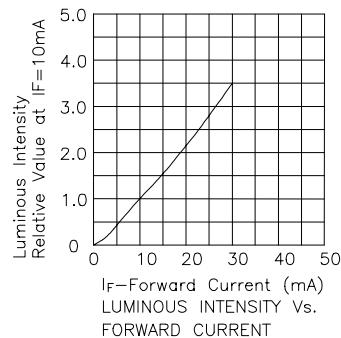
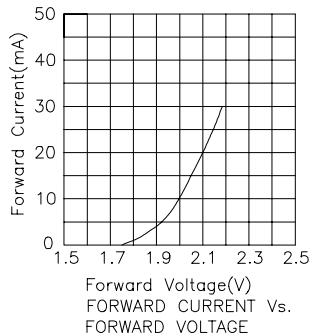
Bright Red L53HDTNR254, L53HDTNR5/7



High Efficiency Red L53IDTNR254, L53IDTNR5/7



Yellow L53YDTNR254, L53ADTNR254, L53YDTNR5/7, L53ADTNR5/7



Reel Dimensions

