# LL-1003VT2D-005

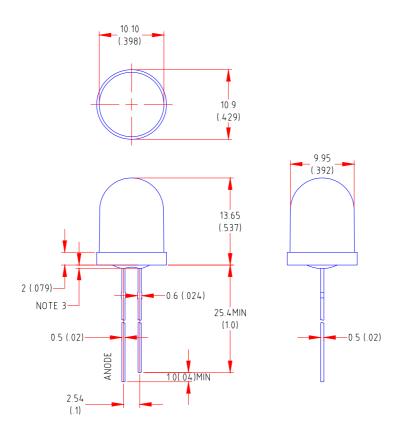
**DATA SHEET** 

QC: ENG: Prepared By:

## **Features**

- ♦ High intensity
- ♦ 10mm diameter package
- ♦ Wide viewing angle
- ♦ General purpose leads
- ♦ Reliable and rugged

## **Package Dimension:**



Part NO.	Chip Material	Lens Color	Source Color
LL-1003VT2D-0 05	AlGaInP	Red Transparent	Super Bright Red

#### **Notes:**

- 1. All dimensions are in millimeters (inches).
- 2. Tolerance is  $\pm 0.25(.010")$ mm unless otherwise noted.
- 3. Protruded resin under flange is 1.0mm(.04") max
- 4. Lead spacing is measured where the leads emerge from the package.
- 5. Specifications are subject to change without notice

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## **Absolute Maximum Ratings at Ta=25**

Parameter	MAX.	Unit	
Power Dissipation	100	mW	
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA	
Continuous Forward Current	35	mA	
Derating Linear From 50	0.4	mA/	
Reverse Voltage	5	V	
Operating Temperature Range	-40 to +80		
Storage Temperature Range	rage Temperature Range -40 to +80		
Lead Soldering Temperature [4mm(.157") From Body]	260 for 5 Seconds		

## **Electrical Optical Characteristics at Ta=25**

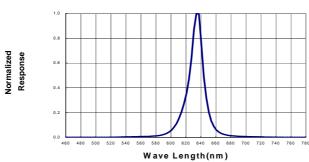
Parameter	Symbol	Min.	Тур.	Max.	Unit	Test Condition
Luminous Intensity	Iv	3800	8000	15000	mcd	I=20mA (Note 1)
Viewing Angle	2 1/2	16	21	26	Deg	(Note 2)
Peak Emission Wavelength	р	631	636	641	nm	I=20mA
Dominant Wavelength	d	623	628	633	nm	I=20mA (Note 3)
Spectral Line Half-Width		15	20	25	nm	I=20mA
Forward Voltage	V <sub>F</sub>	1.8	2.2	2.7	V	I=20mA
Reverse Current	<b>I</b> R			100	μΑ	V <sub>R</sub> =5V

#### Note:

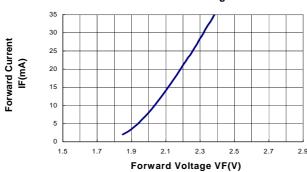
- 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- 2.  $_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- 3. The dominant wavelength (d) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

# Typical Electrical / Optical Characteristics Curves (25 Ambient Temperature Unless Otherwise Noted)

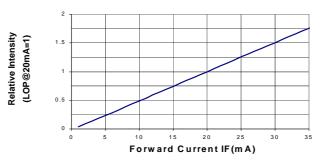




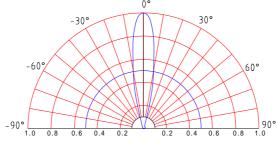
# Forward Current vs Forward Voltage



## Relative Luminous Intensity vs Forward Current



#### Beam Pattern



Relative Intensity (LOP @ MAX=1)