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**Model: L-5T2OSR-D7V**  
 70 Degree Oval LED Lamp in High Red Color with Water Transparent Lens and No Stopper

**Dice Material:**  
 AlGaInP

- Applications:**
- Variable Message Signs
  - Message Board

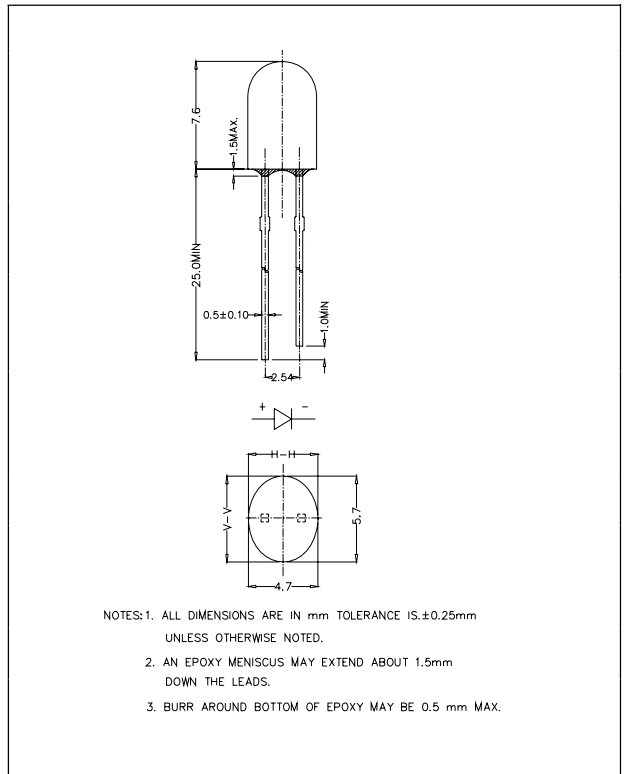
**Absolute Maximum Ratings at Ta = 25°C**

Items	Symbol	Absolute maximum Rating	Unit
Forward Current*2	I <sub>F</sub>	50	mA
Peak Forward Current*1	I <sub>FP</sub>	200	mA
Reverse Voltage	V <sub>R</sub>	5	V
Power Dissipation	P <sub>D</sub>	130	mW
Operation Temperature	T <sub>opr</sub>	-40 ~ + 95	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Lead Soldering Temperature	T <sub>sol</sub>	Max.260°C for 5 sec Max. (3mm from the base of the epoxy bulb)	

\*1 pulse width <=0.1msec duty <=1/10

\*2 For long term performance the drive currents between 10mA and 30mA are recommended.

**Dimension Drawing**



**Typical Electrical & Optical Characteristics ( Ta = 25°C)**

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 20mA	---	2.3	2.6	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 5V	---	---	100	μA
Dominant Wavelength	λ <sub>D</sub>	I <sub>F</sub> = 20mA	620	628	635	nm
Luminous Intensity	I <sub>v</sub>	I <sub>F</sub> = 20mA	770	1200	---	mcd
50% Power Angle	20½ H-H	I <sub>F</sub> = 20mA	---	70	---	deg
	20½ V-V	I <sub>F</sub> = 20mA	---	40	---	deg

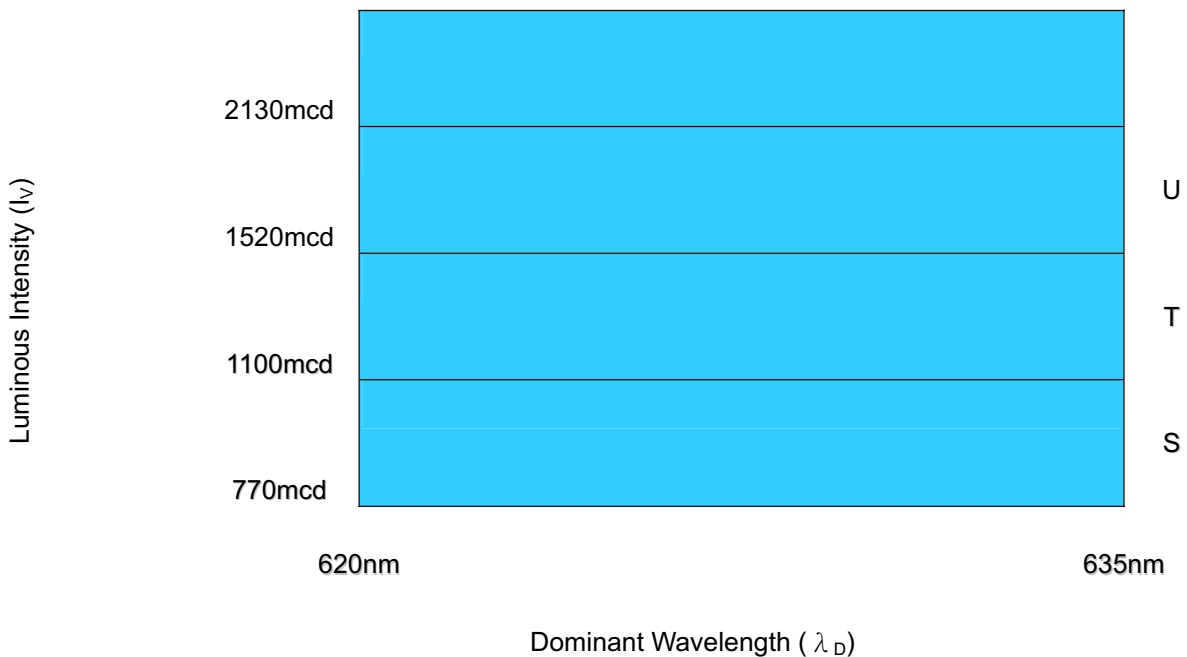
**Standard bins for L-5T2OSR-D7V (I<sub>F</sub> = 20mA):**

Lamps are sorted to Luminous Intensity – I<sub>V</sub>, V<sub>F</sub> & Dominant Wavelength – λ<sub>D</sub> bins shown.

Orders for L-5T2OSR-D7V may be filled with any or all bins contained as below.

All Luminous Intensity – I<sub>V</sub>, V<sub>F</sub> & Dominant Wavelength – λ<sub>D</sub> values shown and specified are at I<sub>F</sub> = 20mA.

**\* S+**



\* S+ indicates Luminous Intensity is at S bin or above.

**Forward Voltage (V<sub>F</sub>)**

Rank	V2	V3	V4	V5
Voltage	1.8-2.0V	2.0-2.2V	2.2-2.4V	2.4-2.6V

**Important Notes:**

- 1) All ranks will be included per delivery; rank ratio will be based on the Dices distribution.
- 2) Tolerance of measurement of luminous intensity is ±15%.
- 3) Tolerance of measurement of dominant wavelength is ±1nm.
- 4) Tolerance of measurement of V<sub>f</sub> is ±0.05 V.

## Graphs

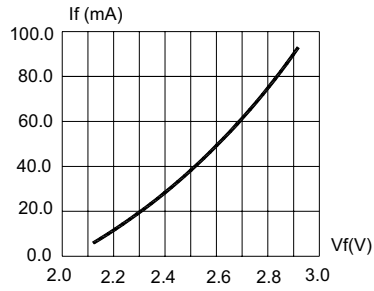


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

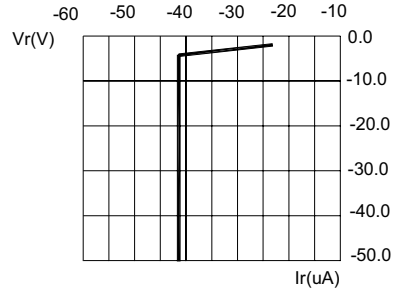


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

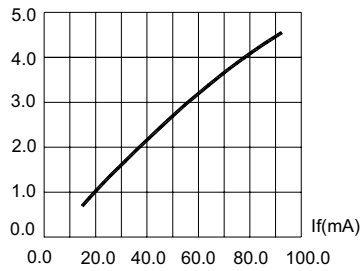


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

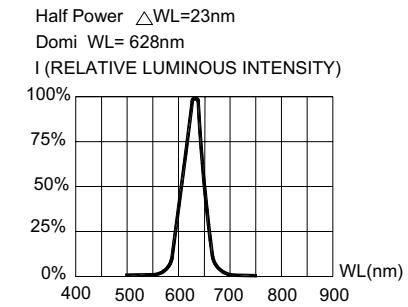


FIG.4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.

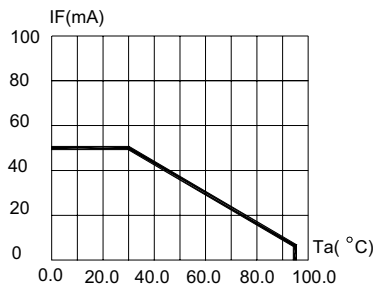


FIG.5 MAXIMUM FORWARD DC CURRENT VS. AMBIENT TEMPERATURE ( $T_{jmax}=105^{\circ}C$ )

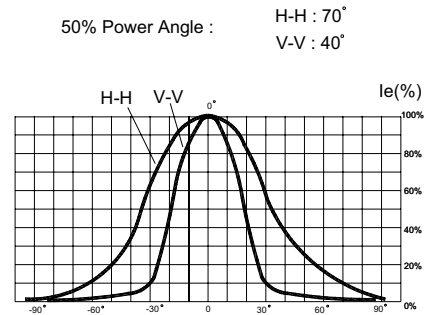


FIG.6 FAR FIELD PATTERN

