

## L645-\_\_ \_V High Bright Red LED Lamp

This series of L645-\_\_ \_V is an InGaAlP LED mounted on a lead frame with a clear epoxy lens. On forward bias, it emits a band of visible light that peaks 645nm.

### 1) Specifications

- (1) Chip material      InGaAlP
- (2) Peak wavelength    645nm typ.
- (3) Package            Clear epoxy resin
- (4) Lead frame         Soldered

### 2) Absolute Maximum Ratings

Item	Symbol	Maximum Rated Value	Unit	Ambient Temperature
Power Dissipation	P <sub>D</sub>	120	mW	T <sub>a</sub> =25°C
Forward Current	I <sub>F</sub>	50	mA	T <sub>a</sub> =25°C
Reverse Voltage	V <sub>R</sub>	5	V	T <sub>a</sub> =25°C
Operating Temperature	T <sub>OPR</sub>	-30 ~ +85	°C	T <sub>a</sub> =25°C
Storage Temperature	T <sub>STG</sub>	-30 ~ +100	°C	
Soldering Temperature	T <sub>SOL</sub>	260	°C	

### 3) Electro-Optical Characteristics [T<sub>a</sub>=25°C]

Item	Symbol	Condition	Minimum	Typical	Maximum	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> =20mA		2.0	2.3	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> =5V			10	µA
Total Radiated Power	P <sub>O</sub>	I <sub>F</sub> =20mA		2.5		mW
Peak Wavelength	λ <sub>P</sub>	I <sub>F</sub> =20mA	635	645	655	nm
Half Width	Δλ	I <sub>F</sub> =20mA		20		nm

### 4) Characteristics of Brightness [T<sub>a</sub>=25°C]

Type	Viewing Half Angle	Brightness I <sub>F</sub> =20mA unit: mcd			Outer Dimension	
		Minimum	Typical	Maximum	Dimension	Figure
L645-01V	±9°		2000		Φ5	1
L645-02V	±3°		3000		Φ5	2
L645-03V	±12°		1500		Φ5	3
L645-04V	±15°		600		Φ5	4
L645-05V	±30°		100		Φ5	5
L645-06V	±3°		5000		Φ5	6
L645-09V	±25°(Long)		600		Φ5	7
	±15°(Short)			Oval		
L645-10V	±5°		8000		Φ10	8
L645-33V	±16°		500		Φ3	9
L645-36V	±40°		250		Φ3	10

‡ Brightness is measured by Tektronix J-16.

‡ Total Radiated Power is measured by Photodyne #500.