



Absolute Maximum Ratings at Ta=25°C

Parameter	Maximum Rating	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	120	mA
Continuous Forward Current	30	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-55°C to + 100°C	
Storage Temperature Range	-55°C to + 100°C	
Lead Soldering Temperature [1.6mm(.063") From Body]	260°C for 5 Seconds	

Electrical Optical Characteristics at Ta=25°C

Parameter	Symbol	Part No. LTL-	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	I _v	523P-12	19	60		mcd	I _F = 10 mA Note 1,4
Viewing Angle	2θ _{1/2}	523P-12		60		deg	Note 2 (Fig.6)
Peak Emission Wavelength	λ _p	523P-12		635		nm	Measurement @Peak (Fig.1)
Dominant Wavelength	λ _d	523P-12		623		nm	Note 3
Spectral Line Half-Width	Δλ	523P-12		40		nm	
Forward Voltage	V _F	523P-12		2.0	2.6	V	I _F = 20 mA
Reverse Current	I _R	523P-12			100	μA	V _R = 5V
Capacitance	C	523P-12		20		pF	V _F = 0 , f = 1MHz

- NOTE: 1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ_{1/2} is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength, λ_d is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
4. I_v needs ±15% additional for guaranteed limits.

Property of Lite-On Only

Typical Electrical / Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

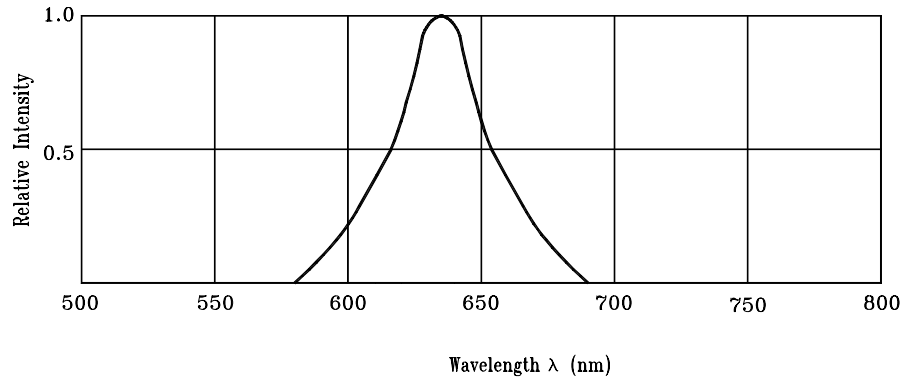


Fig.1 Relative Intensity vs. Wavelength

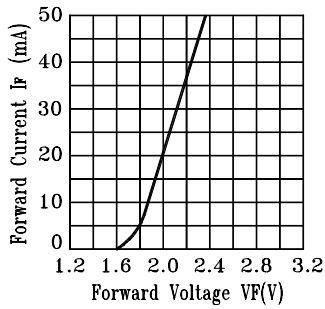


Fig.2 Forward Current vs. Forward Voltage

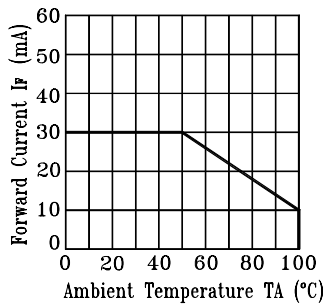


Fig.3 Forward Current Derating Curve

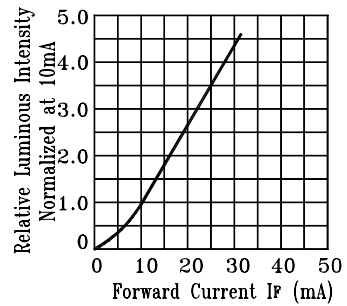


Fig.4 Relative Luminous Intensity vs. Forward Current

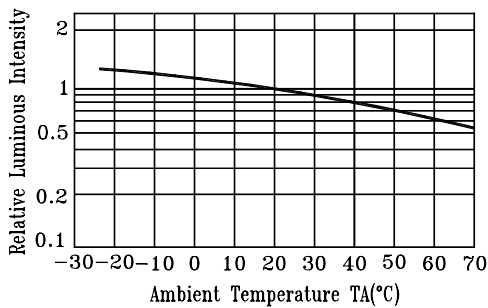


Fig.5 Luminous Intensity vs. Ambient Temperature

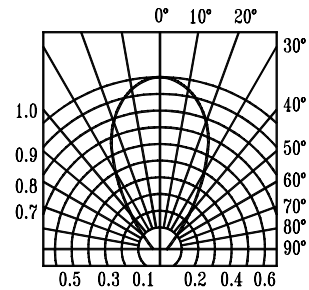


Fig.6 Spatial Distribution