



American Opto Plus LED L513GD-B

5mm Green Diffused, Water Clear

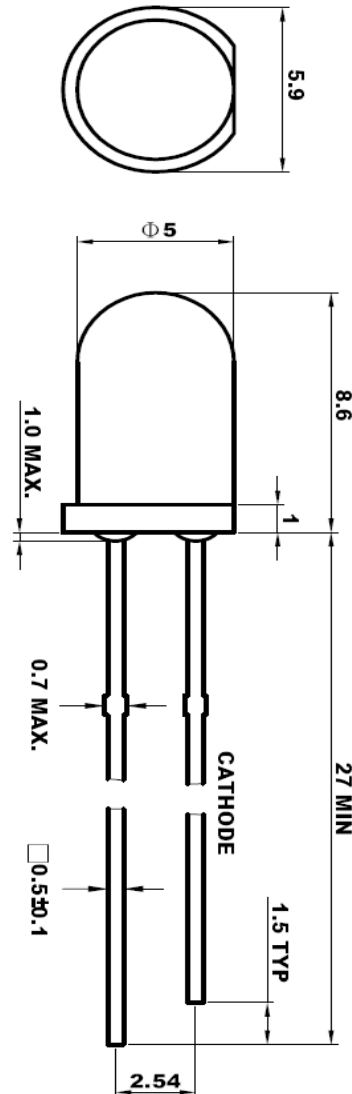
- ◆ 5.0mm LED LAMP
- ◆ LOW POWER CONSUMPTION
- ◆ HIGH LUMINOUS INTENSITY
- ◆ ROHS COMPLIANT

FEATURES

- Low power consumption.
- High Luminous Output
- High Reliability and Solid
- Optimal Optical/ Mechanical Design
- Compliant with RoHS

DESCRIPTIONS

- Chip Material: GaP
- Emitting Color: Green Diffused
- Lens Color: Water Clear



Note:

Tolerance is $\pm 0.25\text{mm}$

SELECTION GUIDE

Chip Material	Chip Emitted	Lens Color	Viewing Angle
GaP	Green Diffused	Water Clear	60°



American Opto Plus LED L513GD-B

5mm Green Diffused, Water Clear

- ◆ 5.0mm LED LAMP
- ◆ LOW POWER CONSUMPTION
- ◆ HIGH LUMINOUS INTENSITY
- ◆ ROHS COMPLIANT

ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation	P_D	65	mW
Pulse Current Forward Current	I_{FP}	100	mA
Forward Average Current	I_F	25	mA
Reverse Voltage	V_R	5.0	V
Operating Temperature Range	T_{OPR}	-40 ~ +85	°C
Storage Temperature Range	T_{STG}	-40 ~ +85	°C

OPTICAL-ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Luminous Intensity	I_V	$I_F = 20\text{mA}$	5	20		mcd
Forward Voltage	V_F	$I_F = 20\text{mA}$		2.05	2.6	V
Reverse Leakage Current	I_R	$V_R = 5\text{V}$		10		μA
Viewing Angle	$2\theta_{1/2}$	$I_F = 20\text{mA}$		60		deg.
Peak Wavelength	λ_P	$I_F = 20\text{mA}$		568		nm
Dominant Wavelength	λ_D	$I_F = 20\text{mA}$		570		nm
Spectral Line half-width	$\Delta\lambda$	$I_F = 20\text{mA}$		30		nm

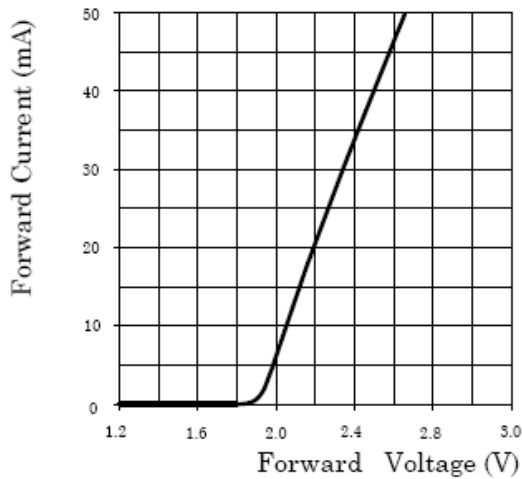


American Opto Plus LED L513GD-B

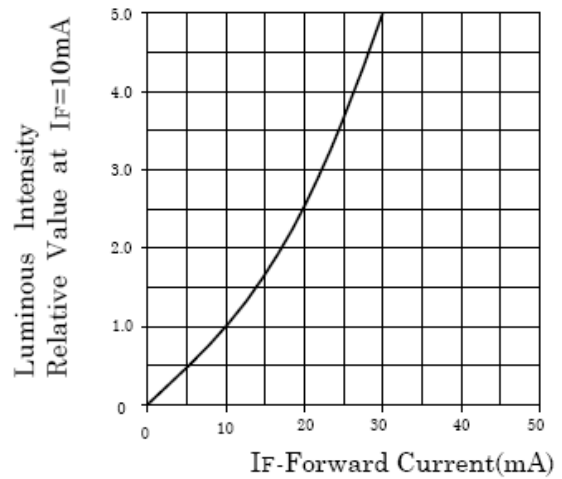
5mm Green Diffused, Water Clear

- ◆ 5.0mm LED LAMP
- ◆ LOW POWER CONSUMPTION
- ◆ HIGH LUMINOUS INTENSITY
- ◆ ROHS COMPLIANT

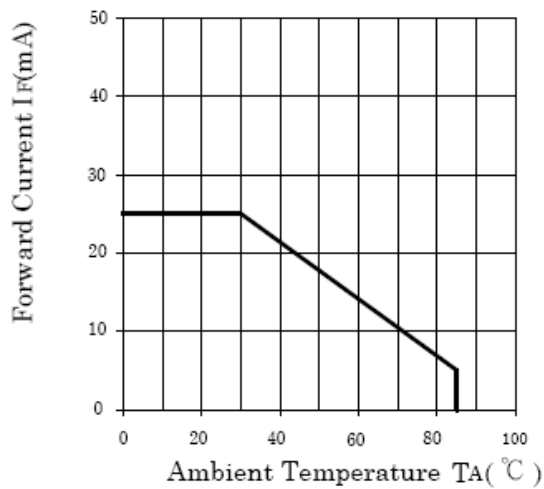
TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES



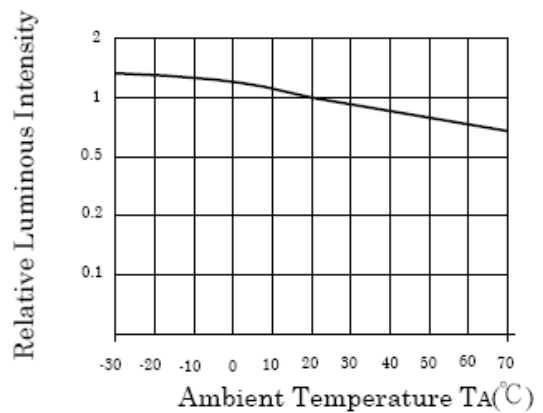
Forward Current Vs.
Forward Voltage



Luminous Intensity Vs.
Forward Current



Forward Current
Derating Curve



Luminous Intensity Vs.
Ambient Temperature



American Opto Plus LED L513GD-B

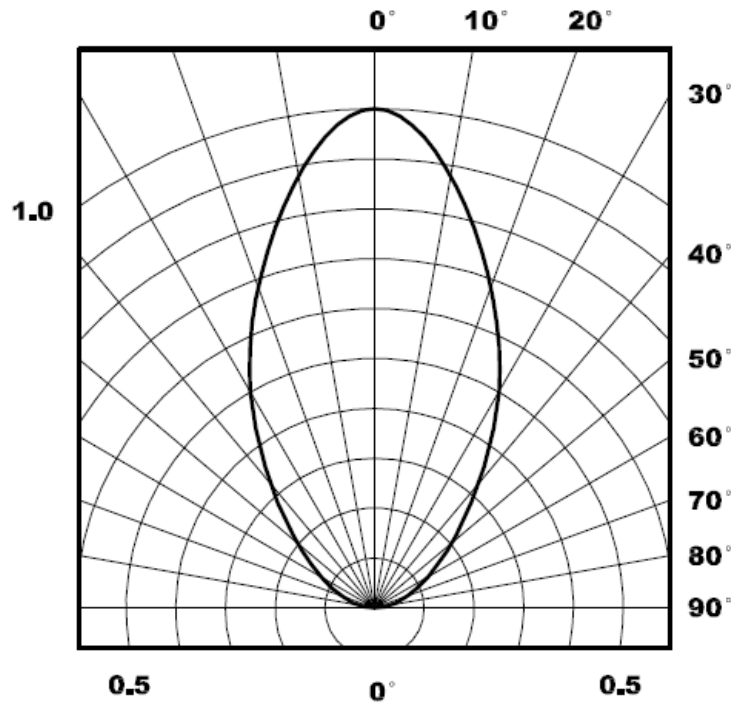
5mm Green Diffused, Water Clear

- ◆ 5.0mm LED LAMP
- ◆ LOW POWER CONSUMPTION
- ◆ HIGH LUMINOUS INTENSITY
- ◆ ROHS COMPLIANT

WAVE SOLDERING

SOLDERING INSTRUCTIONS

TYPE	DIP AND WAVE SOLDERING			IRON SOLDERING (WITH 1.5mm IRON TIP)		
	TEMPERATURE OF THE SOLDERING BATH	MAXIMUM SOLDERING TIME	DISTANCE FROM SOLDER JOIN TO CASE	TEMPERATURE OF SOLDERING IRON	MAXIMUM SOLDERING TIME	DISTANCE FROM SOLDER JOINT TO CASE
LEDS	≤ 260°C	3S	>2mm	≤ 295°C	3S	>2mm
	≤ 260°C	5S	>4mm	≤ 295°C	5S	>4mm
DISPLAYS	≤ 260°C	3S	>2mm	≤ 295°C	3S	>2mm



View Angle $2\theta_{1/2} = 60^\circ$