



American Opto Plus LED L-513LRD

5mm LED LAMP - RED DIFFUSED

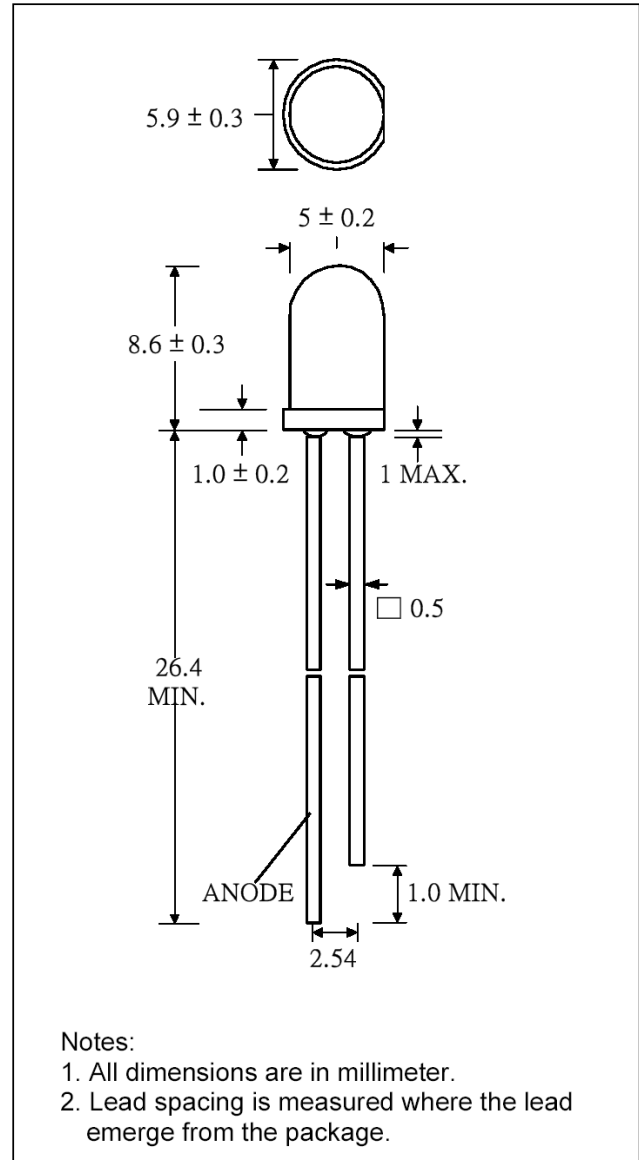
- ◆ 5.0mm DIA LED LAMP
- ◆ I.C. COMPATIBLE
- ◆ LOW POWER CONSUMPTION
- ◆ LONG LAMP LIFE

DESCRIPTION

- Super bright LED Lamp
- Round type
- T1-3/4 (5mm) diameter
- Lens color: Red diffused
- With flange
- Solder leads without stand-off

FEATURES

- Emitted color: Super Red
- High luminous intensity
- Technology: AlGaAs
- Dominant wavelength $\lambda_D = 645\text{nm}$
- Viewing angle: 60°



SELECTION GUIDE

Chip Material	Chip Emitted	Lens Color	Viewing Angle
AlGaAs	Super Red	Red Diffused	60°



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ABSOLUTE MAXIMUM RATINGS

(Ta=25°C)

Parameter	Symbol	Max Rating	Unit
Power Dissipation	P_D	72	mW
Pulse Forward Current (1/10 Duty Cycle @1KHz)	I_{PF}	100	mA
Forward Current	I_F	30	mA
Reverse Voltage	V_R	5.0	V
Operating Temperature Range	T_{OPR}	-40~+85	°C
Storage Temperature Range	T_{STG}	-40~+85	°C

Solder temperature 1.6 mm from body for 5 seconds at 260°C

OPTICAL-ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
Luminous Intensity	I_v	$I_F = 20mA$	90	165		mcd
Forward Voltage	V_F	$I_F = 20mA$		1.85	2.4	V
Reverse Current	I_R	$V_R = 5V$			10	uA
Viewing Angle	2θ1/2	$I_F = 20mA$		60		deg.
Peak Wavelength	λ_P	$I_F = 20mA$		660		nm
Dominant Wavelength	λ_D	$I_F = 20mA$		645		nm

Tolerance of viewing angle: -10 / +5 deg.

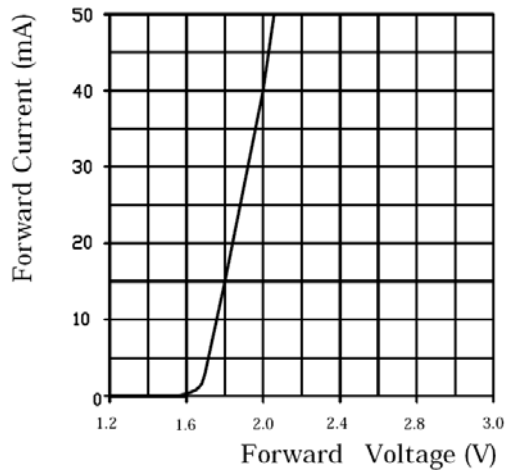


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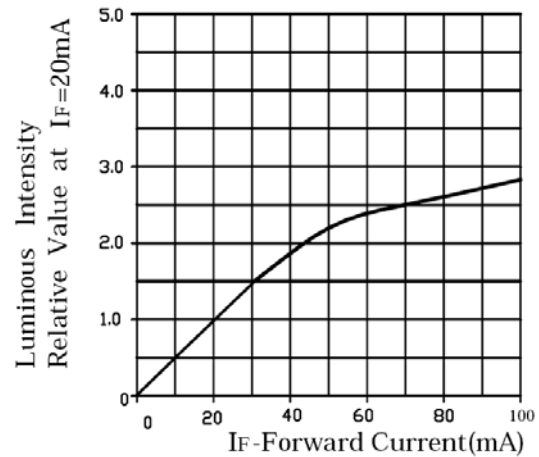
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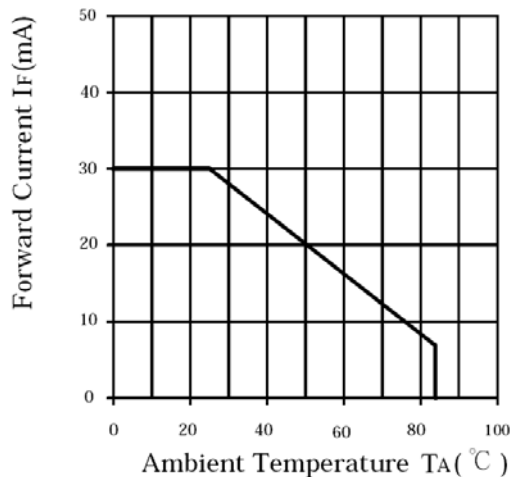
TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES



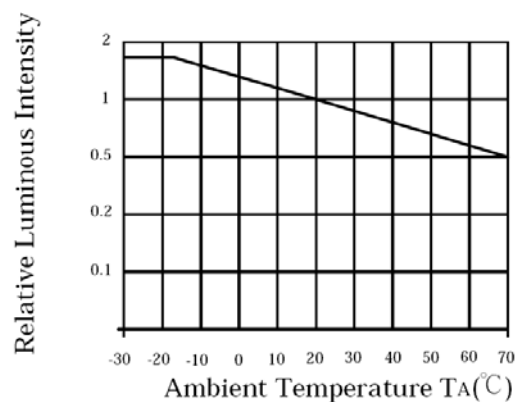
Forward Current Vs.
Forward Voltage



Luminous Intensity Vs.
Forward Current



Forward Current
Derating Curve



Luminous Intensity Vs.
Ambient Temperature