



Data Sheet

Customer:

Part No:

Sample No:

Description:

Item No:

CL-10013YD1A-001

10Ø Lamp Yellow Color

Customer			
Check	Inspection	Approval	Date

Features

Low Power Consumption

High Efficiency

Round Type

T1 (10mm) Diameter

With Flange

Solder Leads Without Stand-off

Compliant With RoHS

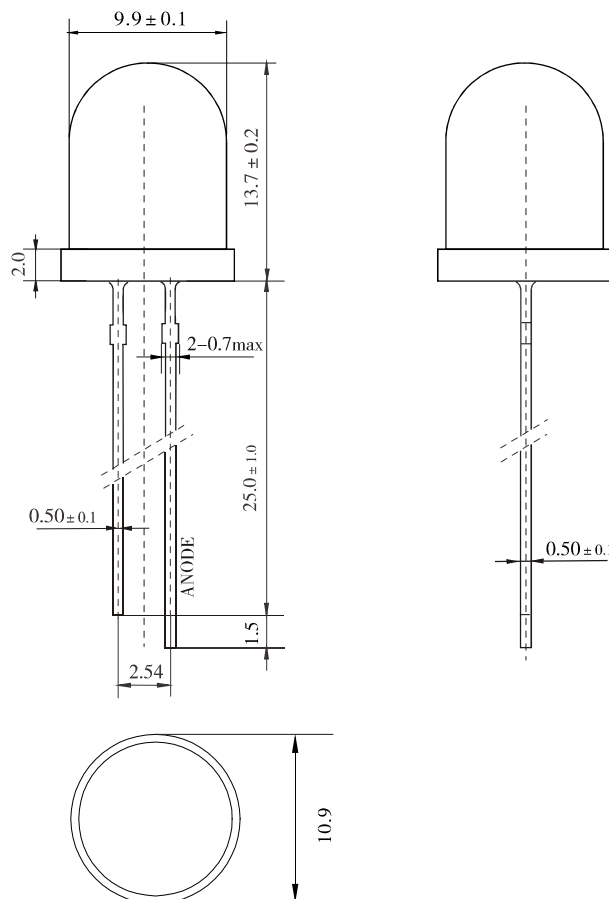
Descriptions

Chip Material:AlGaInP/GaAs

Emitting Color: Yellow

Lens Color: Yellow Diffused

Outline Drawing



ATTENTION



OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
SENSITIVE DEVICES

Tolerance is ± 0.25 mm unless otherwise noted, Unit=mm
Pin bending $\leq$ length*1%

ELECTRICAL OPTICAL CHARACTERISTICS (Ta=25℃)

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Forward Voltage	V_F	—	2.0	2.4	V	IF=20mA
Luminous Intensity	I_V	72.8	150	—	med	IF=20mA
Peak Wavelength	λ_P		590		nm	IF=20mA
Spectral Line half-width	$\Delta \lambda$		15		nm	IF=20mA
Reverse Leakage Current	I_R			50	μA	VR=5V
Viewing Angle	$2\theta_{1/2}$		30		Deg	IF=20mA

ABSOLUTE MAXIMUM PARAMETERS (Ta=25℃)

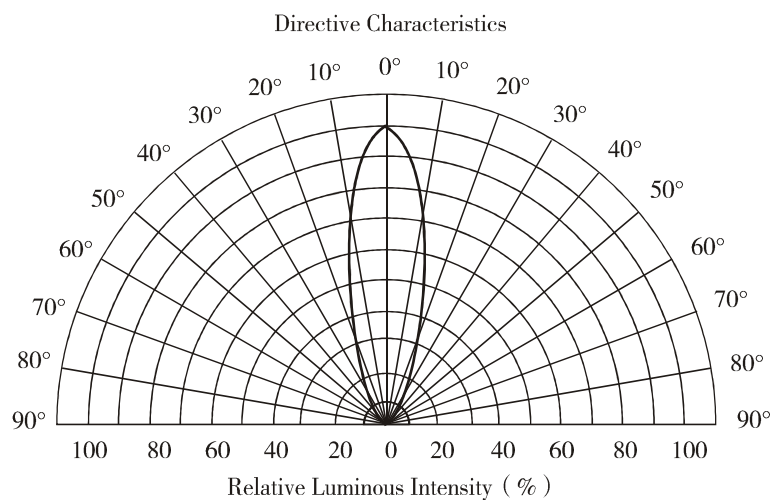
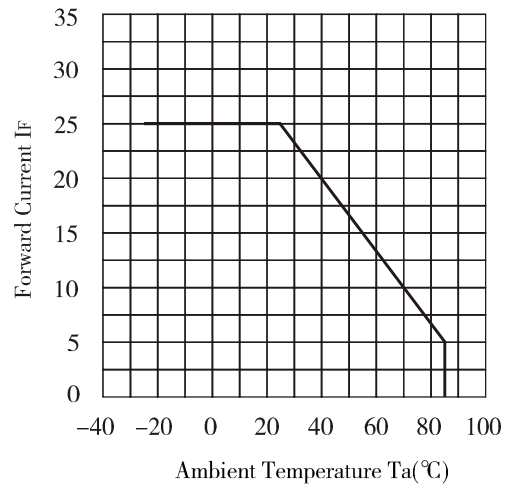
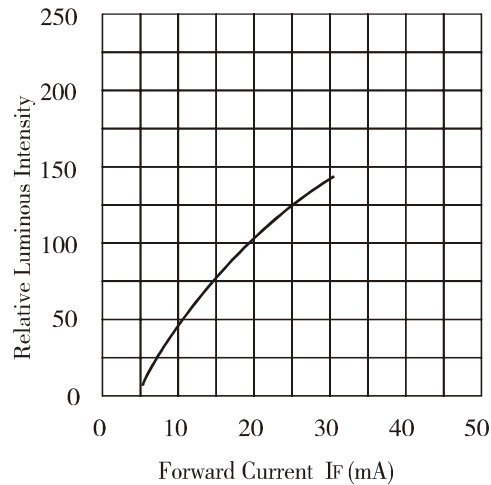
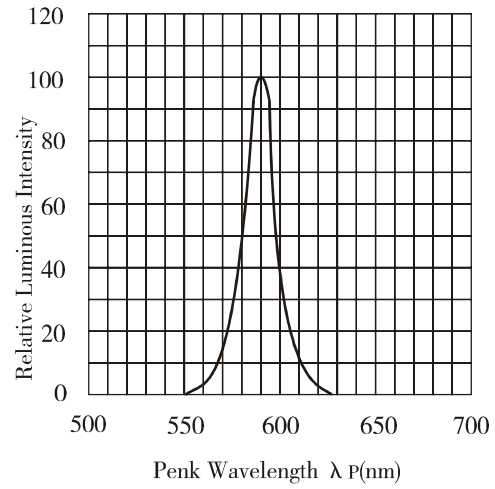
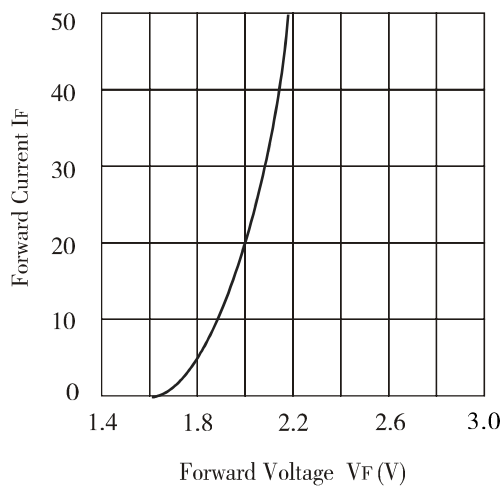
Parameter	Symbol	Condition	Rating	Unit
Power Dissipation	P_D	---	60	mW
Reverse Voltage	V_R	IR=50 μA	5	V
Forward Average Current	I_F	---	25	mA
Temperature coefficient	I/C	---	0.33	mA/℃
Pulse Current	IFP	Duty=1/10,1kHz	100	mA
Operating Temperature Range	Topr	---	-25 ~ +85	℃
Storage Temperature Range	Tstg	---	-40 ~ +100	℃
Soldering Condition	Tsd	---	265℃/5sec	℃

NOTE:

Luminous Intensity Measurement allowance is $\pm 10\%$.

$2\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

The dominant wavelength is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

TYPICAL ELECTRO-OPTICAL CHARACTERISTIC CURVES ($T_a=25^{\circ}\text{C}$)


Luminous Intensity Ranks(IF=20mA Ta=25°C)

Bin Code	Min(mcd)	Max(mcd)
K	72.8	102
L	102	145
M	145	200
N	200	280

Package

Item	Inner packaging bag	Inner packaging box	Outside packaging box
Material	Antistatic bag	Single corrugated box	Double corrugated box
Quantity	250 PCS	Single corrugated box × 8 =2000 PCS	Inner packaging box × 4 =8000PCS
Marking	Label Marking: Type、Quantity	Certificate of conformity Marking: Product name 、 Type、Quantitye、 Date of manufacture	Packing list Marking: Product name 、 Type、Quantitye、 Date of shipment
Size	16×23(cm)	28.7×18.2× 14.4(cm)	38.5× 30.5× 31.5(cm)

Reliability Test Conditions

Test Item	Test Condition	Result	Judgment Criteria
Consecutive operating life test	IF=20mA, T=25℃, t=168h	0/100	Forward Voltage $V_F(V) = \text{Upper Limit} \times 1.2$ Reverse Leakage Current $I_R(\mu A) = \text{Upper Limit} \times 2.0$ Luminous Intensity IV $(\text{mcd}) = \text{Lower Limit} \times 0.7$
High temperature storage life test	T=100℃, t=168h	0/100	
Low temperature storage life test	T=25℃, t=168h	0/100	
High temperature humidity storage life test	T=85 ± 2℃, RH=85% ± 3, t=168h	0/100	
Temperature cycle test	-25℃~25℃~100℃ 30min 5min 30min 10cycles	0/100	
Thermal shock test	100℃ 0℃ 5min 5min 20cycles	0/100	
Soldering heat test	T=260 ± 5℃, t=10s ± 1s	0/100	
Solderability test	T=235 ± 5℃, t=5s ± 0.5s	0/100	Steeped Part ≥ 95%
Fall test	h=100cm, 50times	0/100	Surface Appearance Photoelectric Properties Intact
Terminal strength test	W=9.8N, t=30 ± 5s	0/100	
Lead bending test	W=4.9N, 2times	0/100	