

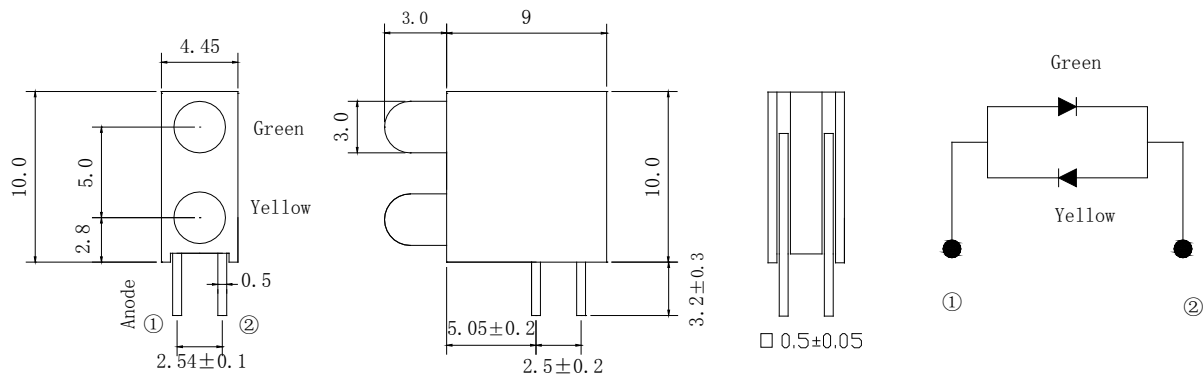
Features

- 3mm Round Type LED Assembly
- Low Power Consumption
- High Efficiency
- Various Colors and Viewing Angle
- Long Solid State Reliability
- Package: 1000pcs/Packing

Applications

- Indicator

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2mm (.0079") unless otherwise noted.
3. Specifications are subject to change without notice
4. This drawing is only for indication, not as a basis for the actual structure.



Selection Guide

Part No	Lens Type	Dice	Emitted Color
FDA-3522GY-TGYD1-D3.2	Green Diffused Yellow Diffused	GaAsP	Yellow Green

Electrical / Optical Characteristics At Ta=25 °C

Symbol	Parameter		Green	Yellow	Unit	Test Condition
Iv	Luminous Intensity	MIN.	25.0	40.0	mcd	IF=20mA
		TYP.	50.0	80.0		
2θ1/2	Viewing Angle	TYP.	60	60	deg	IF=20mA
λ Peak	Peak Emission Wavelength	TYP.	575	591	nm	IF=20mA
λ d	Dominant Wavelength	TYP.	573	589	nm	IF=20mA
Δλ	Spectral Line Half-Width	TYP.	15	15	nm	IF=20mA
VF	Forward Voltage	TYP.	2.1	2.1	V	IF=20mA
		MAX.	2.4	2.4		
IR	Reverse Current	MAX.	10	10	μ A	VR=5V

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 optical centerline value

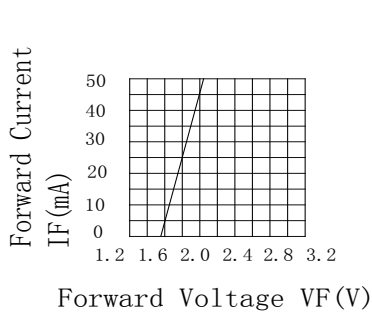
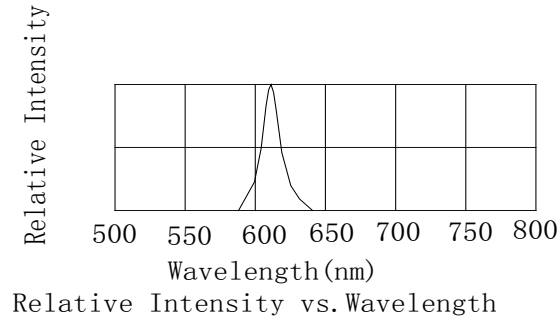
Absolute Maximum Ratings At Ta=25°C

Parameter	Green	Yellow	Unit
Power Dissipation	80	80	mW
Peak Forward Current[1]	150	150	mA
Continuous Forward Current	30	30	mA
Reverse Voltage	5	5	V
Operating Temperature Range	-25°C to + 85°C		
Storage Temperature Range	-55°C to + 105°C		
Soldering Condition	260°C For 5 Seconds		

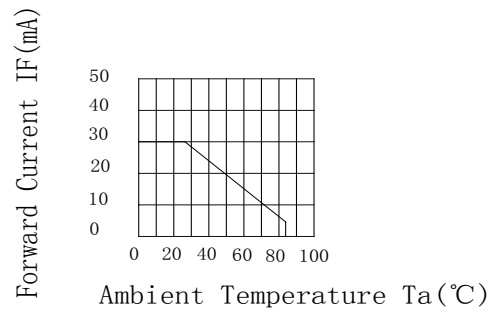
Note:

1. 1/10DutyCycle, 0.1msPulseWidth

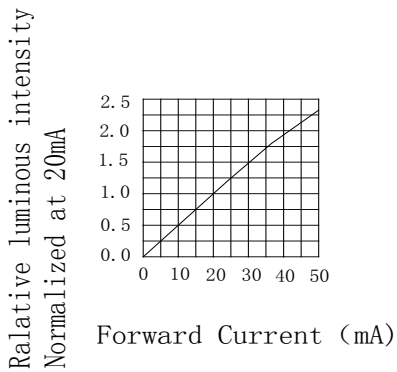
Electrical Optical Characteristics Curves At Ta=25 °C



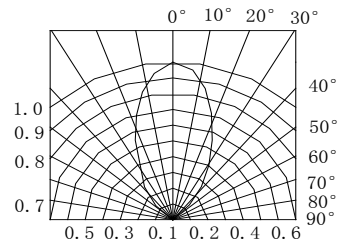
Forward Current vs. Forward Voltage



Forward Current Derating Curve

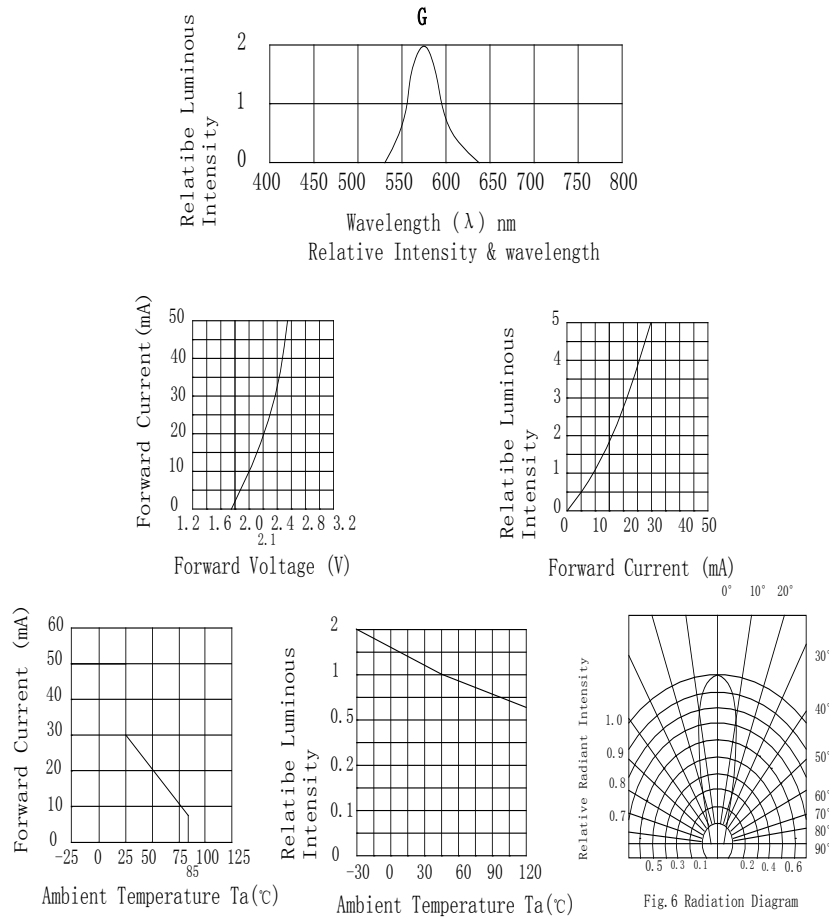


Forward luminous Intensity vs. Forward Current

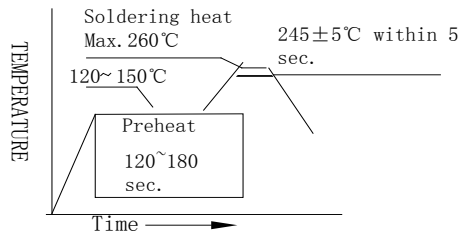


Spatial Distribution

Electrical Optical Characteristics Curves At Ta=25 °C



Reflow Soldering Instructions



Notes:

1. The LEDs should be used within a year.
2. The LEDs should be kept in 5~30°C and 60% RH for less.
3. The LEDs should be used within 24 hours, or else should be kept a 5~30°C and 30% RH or less. And LEDs should be used within 7 days after opening the package.

Reliability Test Items Conditions

Classification	Test Item	Test Conditions	Test hours	Result
Endurance Test	Opertion Life	Connect with a power $I_f=20mA$ T_a =Under room temperature	1000Hrs	0/20
	Hige Temperature High Humidity	$T_a=+65^{\circ}C\pm5^{\circ}C$ RH=90%-95%	240Hrs	0/20
	Hige Temperature Storage	High $T_a=+85^{\circ}C\pm5^{\circ}C$	1000Hrs	0/20
	Low Temperature Storage	Low $T_a=-35^{\circ}C\pm5^{\circ}C$ Test time=1000hrs	1000Hrs	0/20
Environmental Test	Temperature Cycling	$-45^{\circ}C \sim +105^{\circ}C$ 15min 5min 15min	300 Cycles	0/20
	Thermal Shock	$-35^{\circ}C \sim \pm5^{\circ}C \sim +85^{\circ}C \sim \pm5^{\circ}C$ 5min 10sec 5min	300 Cycles	0/20
	Solder Resistance	Preheating: $120^{\circ}C-150^{\circ}C$, within 2 minutes. Operation heating : $260^{\circ}C$ (Max.), within 5 seconds (Max.)	5Cycles	0/20

Judgment criteria of fialure for the reliability

Measuring items	Symbol	Measuring conditions	Judgment criteria for failure
Forward voltage	$V_F(V)$	$I_F=20mA$	Over $U \times 1.2$
Rvevrse current	$I_R(\mu A)$	$V_R=5V$	Over $U \times 2$
Luminous intensity	$I_v(mcd)$	$I_F=20mA$	Below $S \times 0.5$

Note: 1.U means the upper limit of specified characteristics. S means initial value.

2.Meansurerment shall be taken between 2 hours after the test pieces have been returned to normal ambient cnditions after completion of each test.