

Specification

Client Name: _____

Client P/N: _____

Factory P/N: OF-SMD3216YG-RV

Sending Date: _____

Features

- Extremely wide viewing angle
- Suitable for all SMT assembly and solder process
- Available on tape and reel
- Moisture sensitivity level: Level 4
- Package:3000pcs/reel
- RoHS compliant



Description

The Greenish Yellow source color devices are made with AlGaInP on Substrate Light Emitting Diode

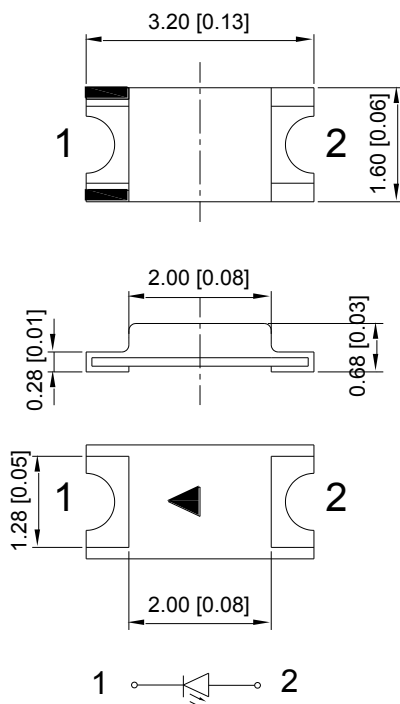
Applications

- Optical indicator
- Indoor display
- Backlighting in dashboard and switch
- Flat backlighting for LCD, symbol and display
- General use

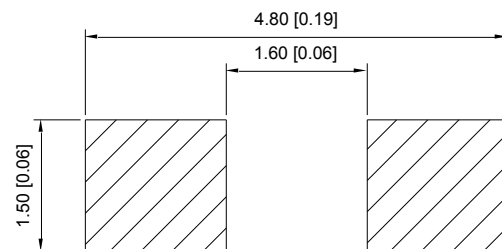


ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Package Dimensions



Recommended Soldering Pattern



Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is ± 0.15 mm unless otherwise noted.

Selection Guide

| Part No. | Dice | Lens Type | Luminous intensity(mcd) @ 20mA | | Viewing Angle |
|-----------------|------------------------------|-------------|-----------------------------------|------|---------------|
| | | | Min. | Typ. | 2θ1/2 |
| OF-SMD3216YG-RV | Greenish Yellow (AlGaInP) | Water Clear | 70 | 100 | 120° |

Note:

1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. the above luminous intensity measurement allowance tolerance ±10%.

Electrical / Optical Characteristics at Ta=25°C

| Parameter | Symbol | Min. | Typ. | Max | Units | Test Conditions |
|---------------------|----------------|------|------|-----|-------|----------------------|
| Forward Voltage | V _F | 1.8 | -- | 2.4 | V | I _F =20mA |
| Reverse Current | I _R | -- | -- | 10 | μA | V _R = 5V |
| Dominant Wavelength | λ _d | 568 | -- | 578 | nm | I _F =20mA |

Absolute Maximum Ratings at Ta=25°C

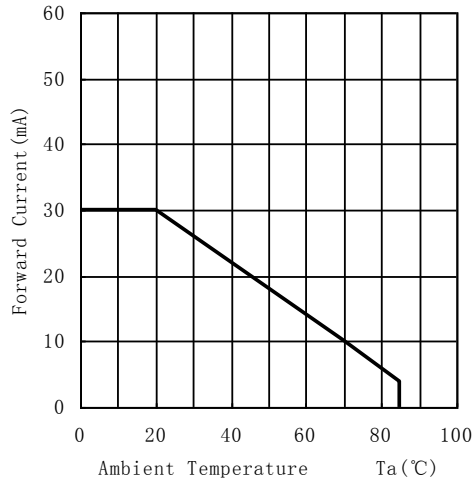
| Parameter | Symbol | Value | Units |
|-------------------------------|------------------|------------|-------|
| Power dissipation | P _d | 75 | mW |
| DC Forward Current | I _F | 30 | mA |
| Peak Forward Current [1] | I _{FP} | 140 | mA |
| Reverse Voltage | V _R | 5 | V |
| Electrostatic Discharge (HBM) | ESD | 1000 | V |
| Operating Temperature | T _{opr} | -40 ~ +85 | °C |
| Storage Temperature | T _{stg} | -40 ~ +100 | °C |

Note:

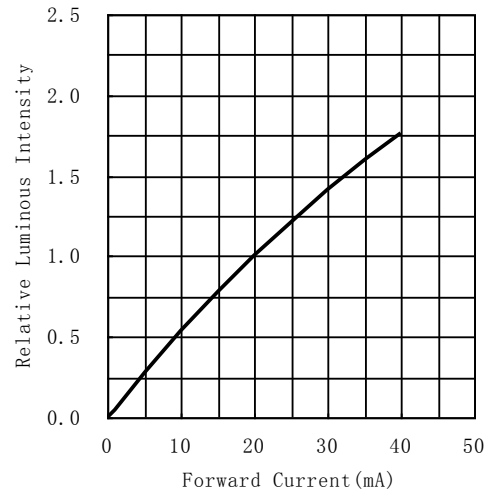
1. 1/10 Duty cycle, 0.1ms pulse width.
2. The above forward voltage measurement allowance tolerance ±0.1V.

Typical optical characteristics curves

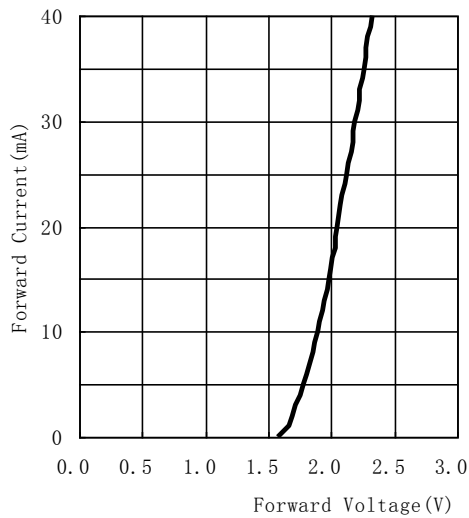
Ambient Temperature VS. Forward Current



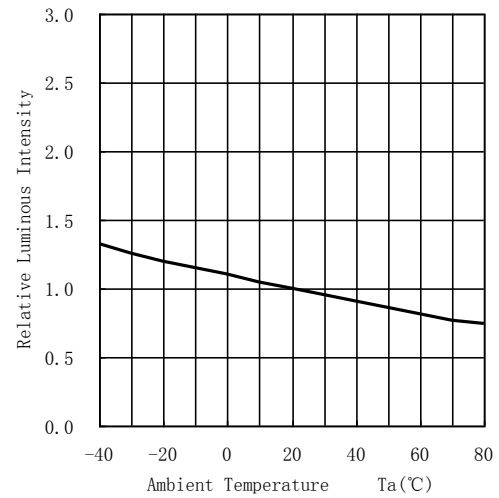
Forward Current VS. Relative Intensity



Forward Voltage VS. Forward Current



Ambient Temperature VS. Relative Intensity



Relative spectral emission

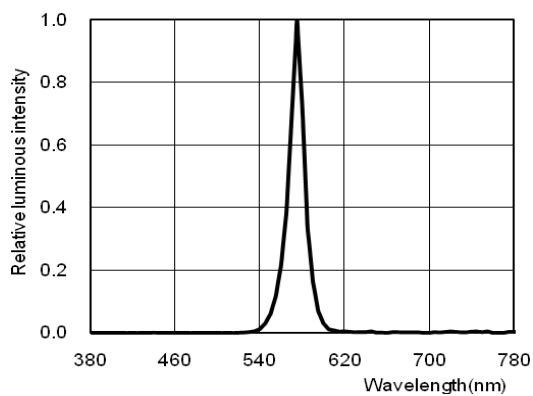
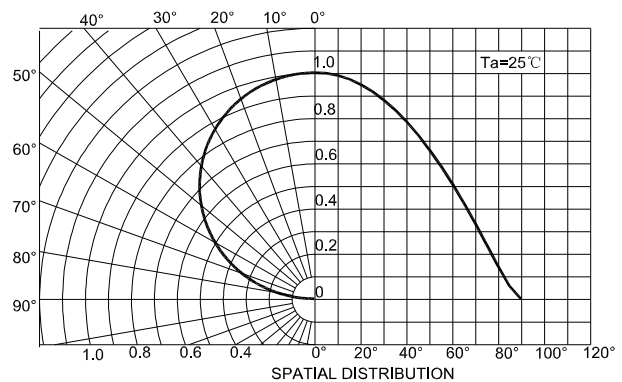


Diagram characteristics of radiation



Reliability Test Items And Conditions

The reliability of products shall be satisfied with items listed below.

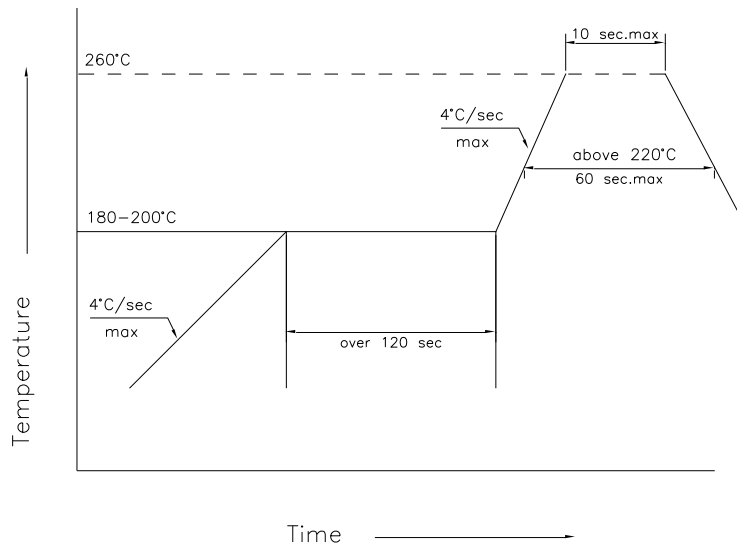
Confidence level :90%

LTPD :10%

| No. | Items | Ref. Standard | Test Condition | Test Hours/ Cycles | Sample Size | Ac/Re |
|-----|-----------------------------------|---------------|---|-----------------------|-------------|-------|
| 1 | Reflow | JESD22-B106 | Temp:260°Cmax T=10 sec | 3 times. | 22Pcs. | 0/1 |
| 2 | Temperature Cycle | JESD22-A104 | 100°C±5°C 30 min. ↑↓5 min -40°C±5°C 30 min. | 100 Cycles | 22Pcs. | 0/1 |
| 3 | Thermal Shock | JESD22-A106 | 100°C±5°C 5 min. ↑↓ -40°C±5°C 5 min. | 100 Cycles | 22Pcs. | 0/1 |
| 4 | High Temperature Storage | JESD22-A103 | Temp:100°C±5°C | 1000Hrs. | 22Pcs. | 0/1 |
| 5 | Low Temperature Storage | JESD22-A119 | Temp:-40°C±5°C | 1000Hrs. | 22Pcs. | 0/1 |
| 6 | DC Operating Life | JESD22-A108 | Ta=25°C±5°C IF=20mA | 1000Hrs. | 22Pcs. | 0/1 |
| 7 | High Temperature High Humidity | JESD22-A101 | 85°C±5°C/ 85%RH IF=5mA | 1000Hrs. | 22Pcs. | 0/1 |

*The technical information shown in the data sheets are limited to the typical characteristics and circuit examples of the referenced products. It does not constitute the warranting of industrial property nor the granting of any license.

SMT Reflow Soldering Instructions



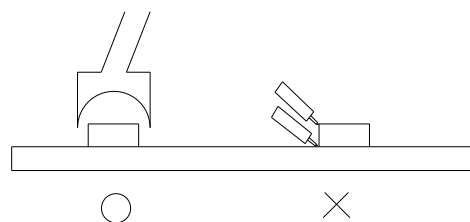
1. Reflow soldering should not be done more than two times
2. When soldering, do not put stress on the LEDs during heating

Soldering iron

1. When hand soldering, the temperature of the iron must be less than 300°C for 3 seconds
2. The hand solder should be done only one time

Repairing

Repair should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used (as below figure). It should be confirmed beforehand whether the characteristics of LEDs will or will not be damaged by repairing.



RoHS

Label

IV: Luminous intensity rank
λD: Dominate Wavelength
VF: Forward voltage rank

Part No: XXXXXXXXXXXXXXXXXXXXXXXX

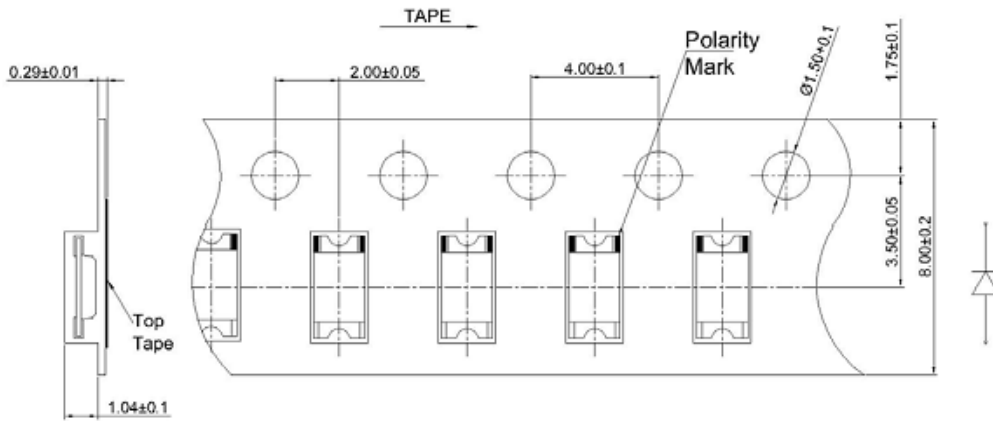
IV: VF: WD:

Quantity:

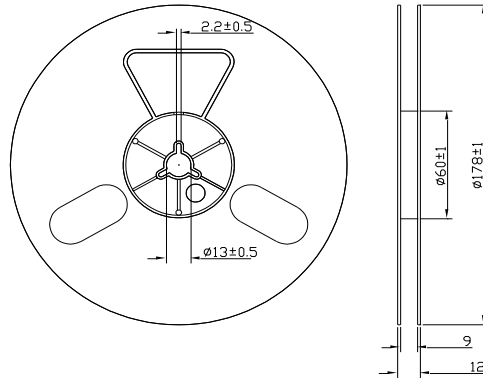
Sealing date: XXXXXXXXXXXXXXXXXXXX



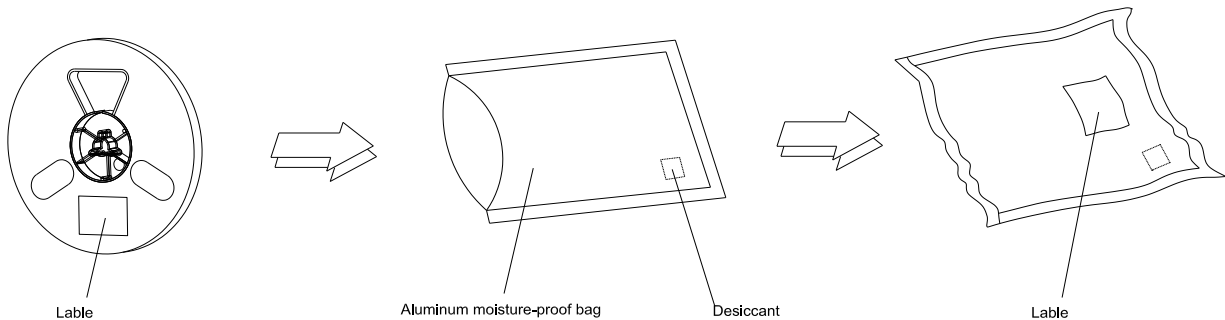
Tape Specifications (Units : mm)



Reel Dimensions



Moisture Resistant Packaging



Note: The tolerances unless mentioned is $\pm 0.1\text{mm}$, Unit: mm

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[YGFR411-H](#) [597-2311-402F](#) [5973212407NF](#) [597-3302-607F](#) [597-5202-407F](#) [598-8330-117F](#) [SAW8WA2A-L35M40-CA](#) [SML013WBDW1](#)
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