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## SMD 0805 LED SERIES

### OF-SMD2012R RED



**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES



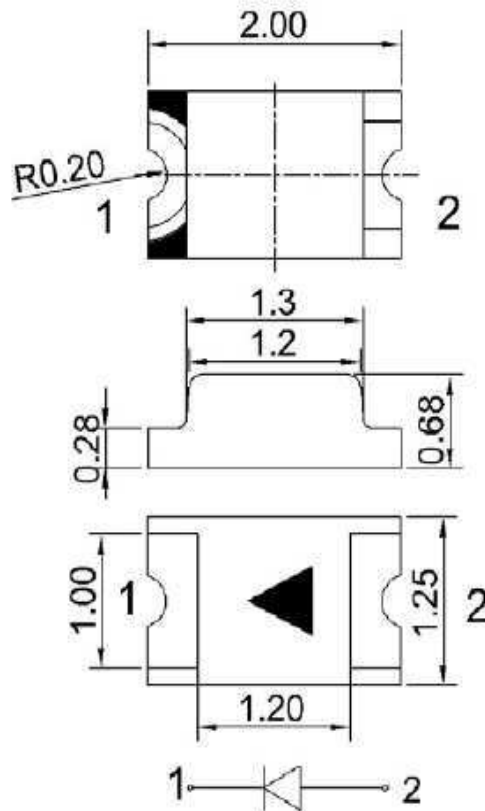
#### Description

The Red source color devices are made with DH InGaAlP on GaAs substrate Light Emitting Diode.

#### Features

- 2.0mmx1.25mm SMT LED, 0.68mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 3000PCS / REEL.

#### Package Dimensions



#### Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is  $\pm 0.2$ mm unless otherwise noted.
3. An epoxy meniscus may extend about 1.5mm down the leads.
4. Burr around bottom of epoxy may be 0.5mm max..



## SMD 0805 LED SERIES

### Selection Guide

Part. No	Dice	Lens Type	Iv(mcd) @20mA		Viewing Angle
			Min.	Typ.	2 $\theta$ 1/2
OF-SMD2012R	RED (InGaAlP)	Water Clear	90	120	120°

**Note:**

1.  $\theta$ 1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.

### Electrical / Optical Characteristics at TA=25°C

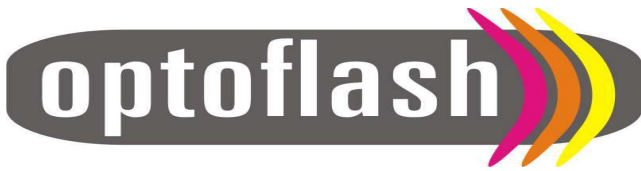
Parameter	Symbol	Device	Condition	Min	Typ	Unit
Forward Voltage DC	V <sub>F</sub>	Red	I <sub>F</sub> =20mA	1.6	1.9	V
Reverse Current	I <sub>R</sub>	All	V <sub>R</sub> =5V		5	uA
Dominant Wavelength	$\lambda_D$	Red	I <sub>F</sub> =20mA	621	624	nm
Capacitance	I <sub>F</sub> (rec)	Red	V <sub>F</sub> =0V; f=1MHz		15	pF

### Absolute Maximum Ratings at TA=25°C

Parameter	Red	Units
Power Dissipation	70	mW
DC Forward Current	30	mA
Peak Forward Current	160	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C to +85°C	

**Note:**

1. 1/10 Duty Cycle, 0.1ms Pulse Width.

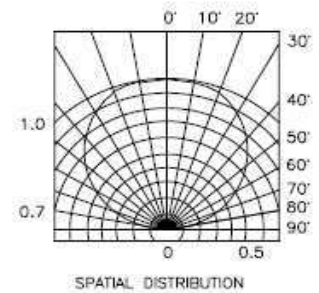
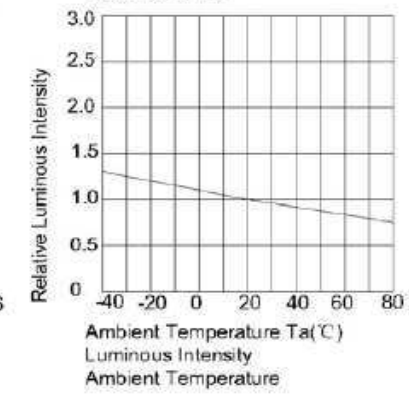
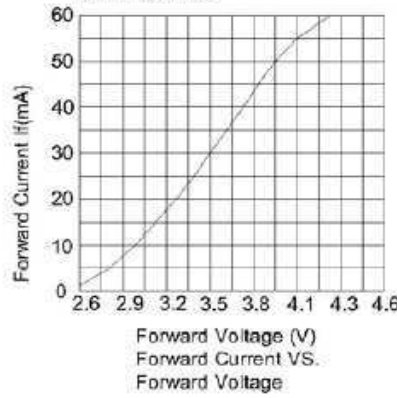
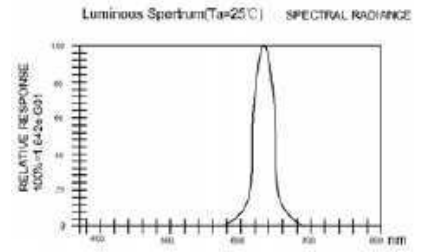
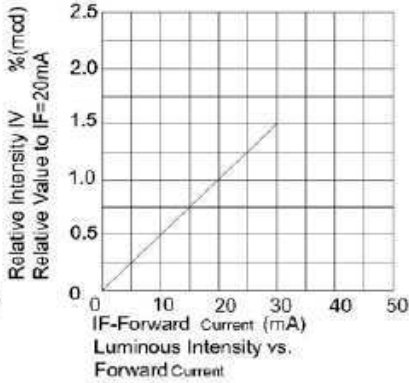
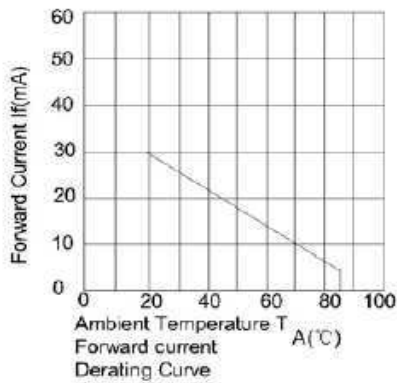


# SMD 0805 LED SERIES

## Reliability Test Items And Conditions

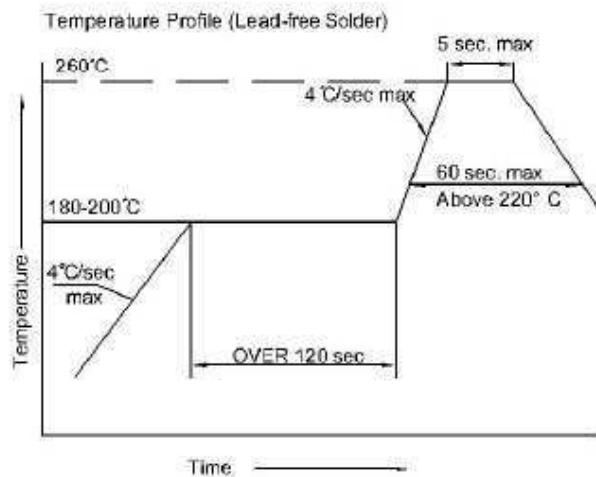
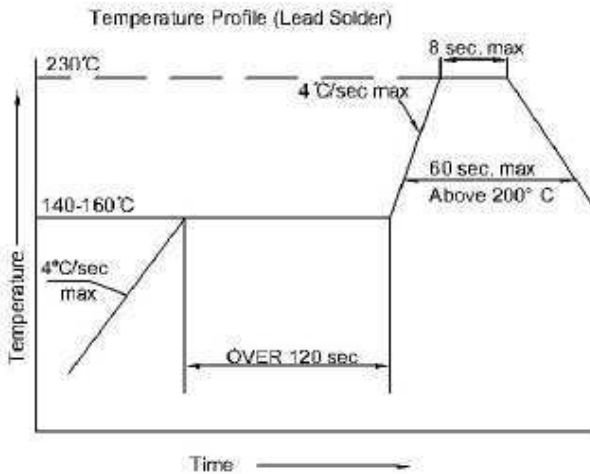
The reliability of products shall be satisfied with items listed below.  
Confidence level :90% LTPD :10%

No.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Rc
1	Reflow	Temp:240°C±5°C Min.5 sec.	6 Min.	22Pcs.	0/1
2	Temperature Cycle	H:+100°C 15 min. ~ 5 min L:-40°C 15 min.	300 Cycles	22Pcs.	0/1
3	Thermal Shock	H:+100°C 5 min. ~ 10 sec. L:-10°C 5 min.	300 Cycles	22Pcs.	0/1
4	High Temperature Storage	Temp.:100°C	1000Hrs.	22Pcs.	0/1
5	Low Temperature Storage	Temp.: -55°C	1000Hrs.	22Pcs.	0/1
6	DC Operating Life	I <sub>F</sub> =20mA	1000Hrs.	22Pcs.	0/1
7	High Temperature/High Humidity	85°C/R.H85%	1000Hrs.	22Pcs.	0/1

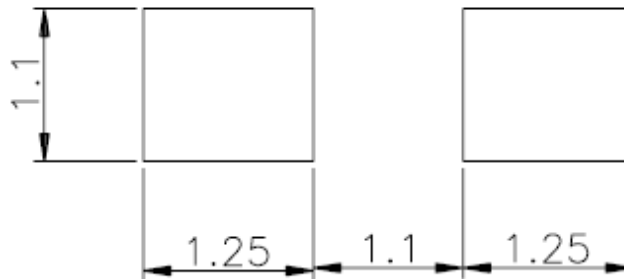


### SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling process to normal temperature is required between first and second soldering process.



### Recommended Soldering Pattern (Units : mm)



### Tape Specifications (Units : mm)

