



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

HL-A-3528U22FC

RED



Features

- SINGLE COLOR.
- PLCC-2 Package
- White package
- Suitable for all SMT assembly and solder process
- Available on tape and reel
- Package:2000pcs/reel

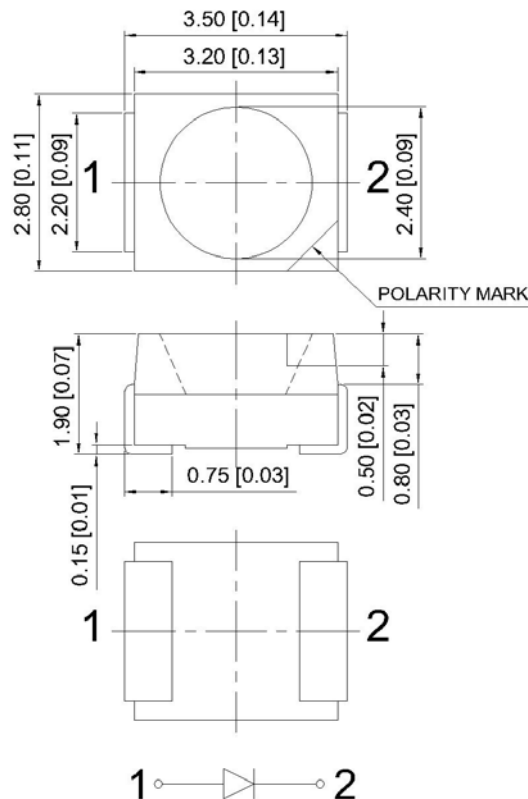
Description

The Red source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Red Light Emitting Diode.

Applications

- Optical indicator
- Indicator and backlighting in telephone and fax
- Flat backlight for LCD,switch and Symbol
- Light pipe application
- General use

Package Dimensions



Notes:

1. All dimension units are millimeters.
2. All dimension tolerance is ± 0.2 mm unless otherwise noted.
3. An epoxy meniscus may extend about 1.5mm down the leads.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	θ1/2
HL-A-3528U22FC	RED (GaAsP/GaP)	WATER CLEAR	355	500	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

Symbol	Parameter	Device	Min.	Typ.	Units	Test Conditions
λD	Dominate Wavelength	Red	621	625	nm	IF=20mA
C	Capacitance	Red		35	pF	VF=0V;f=1MHz
VF	Forward Voltage	Red	1.6	1.9	V	IF=20mA
IR	Reverse Current	Red		5	uA	VR = 5V

Absolute Maximum Ratings at TA=25°C

Parameter	Red	Units
Power dissipation	65	mW
DC Forward Current	30	mA
Peak Forward Current [1]	185	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	

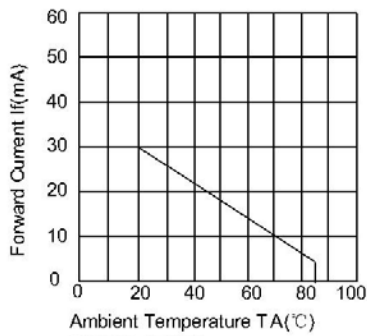
Note:

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

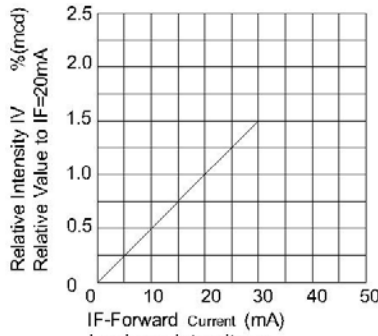
RED HL-A-3528U22FC
Reliability Test Items And Conditions

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

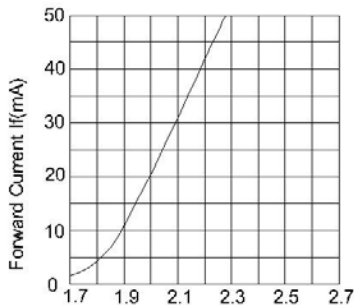
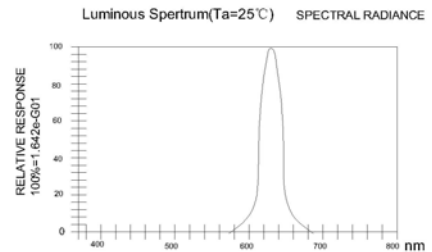
No.	Items	Test Condition	Test Hours/Cycles	Sample Size	Ac/Rc
1	Reflow	Temp:260°C±5°C Min.5 sec.	6 Min.	22Pcs.	0/1
2	Temperature Cycle	H:+100°C 15 min. ∞ 5 min L:-40°C 15 min.	300 Cycles	22Pcs.	0/1
3	Thermal Shock	H:+100°C 5 min. ∞ 10 sec. L:-10°C 5 min.	300 Cycles	22Pcs.	0/1
4	High Temperature Storage	Temp.:100°C	1000Hrs.	22Pcs.	0/1
5	Low Temperature Storage	Temp.: -40°C	1000Hrs.	22Pcs.	0/1
6	DC Operating Life	I _F =20mA	1000Hrs.	22Pcs.	0/1
7	High Temperature/High Humidity	85°C/85%RH	1000Hrs.	22Pcs.	0/1



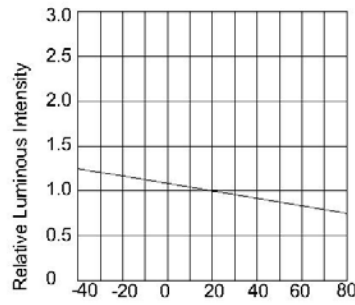
Ambient Temperature TA(°C)
 Forward current
 Derating Curve



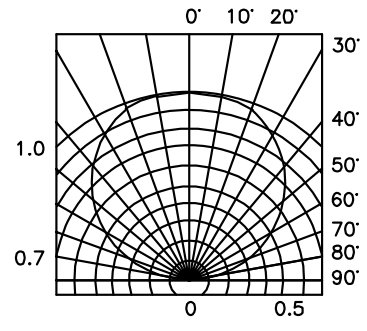
IF-Forward Current (mA)
 Luminous Intensity vs.
 Forward Current



Forward Voltage (V)
 Forward Current VS.
 Forward Voltage



Ambient Temperature Ta(°C)
 Luminous Intensity
 Ambient Temperature

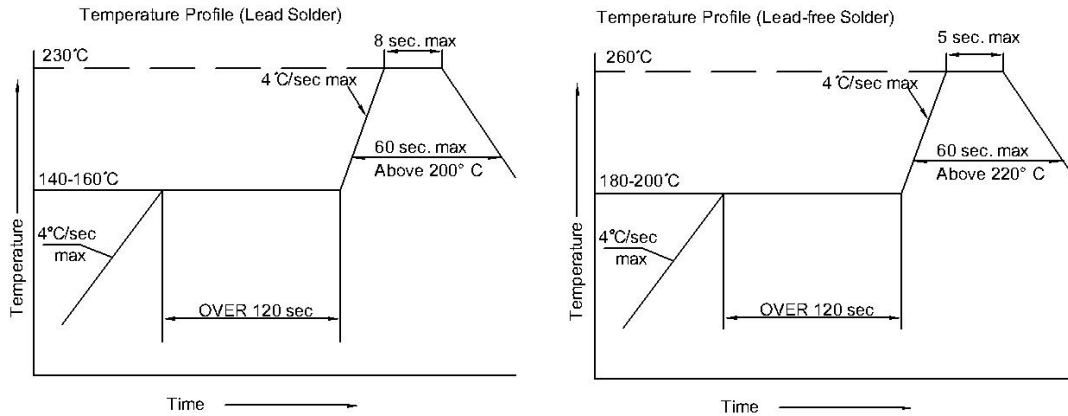


SPATIAL DISTRIBUTION

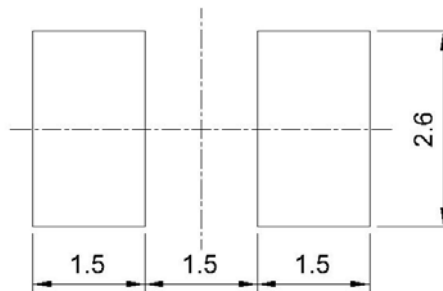
HL-A-3528U22FC

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)

