



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

**HH-PLCC3528RC-120**

**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

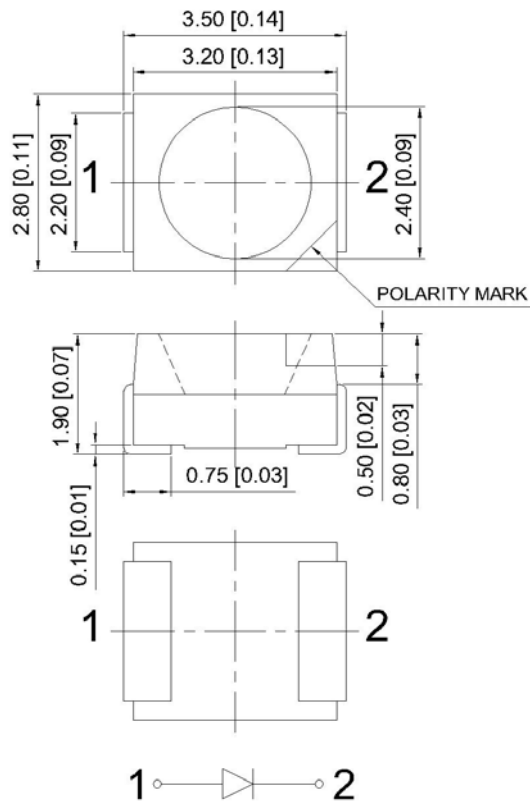
### Description

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  $\pm 0.2\text{mm}$  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.	2θ1/2
HH-PLCC3528RC-120	RED (GaAsP/GaP)	WATER CLEAR	125	200	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 T<sub>A</sub>=25°C

Symbol	Parameter	Device	Min.	Typ.	Units	Test Conditions
λ <sub>D</sub>	Dominant Wavelength	Red	621	625	nm	I <sub>F</sub> =20mA
C	Capacitance	Red		35	pF	V <sub>F</sub> =0V;f=1MHz
V <sub>F</sub>	Forward Voltage	Red	1.6	1.9	V	I <sub>F</sub> =20mA
I <sub>R</sub>	Reverse Current	Red		5	uA	V <sub>R</sub> = 5V

### Absolute Maximum Ratings at T<sub>A</sub>=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.

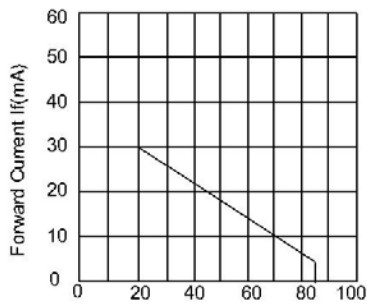
## RED HH-PLCC3528RC-120

### Reliability Test Items And Conditions

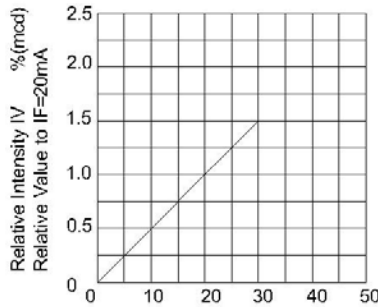
The reliability of products shall be satisfied with items listed below.  
Confidence level :90% LTPD :10%

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 <sub>F</sub> =20mA	1000Hrs.	22Pcs.	0/1
7	High Temperature/High Humidity	85°C/85%RH	1000Hrs.	22Pcs.	0/1

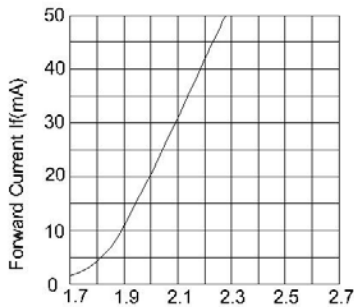
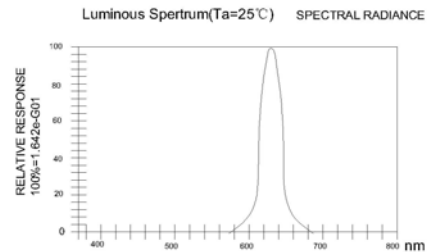
\*The technical information shown in the data sheets are limited to the typical characteristics and circuit examples of the referenced products. It does not constitute the warranting of industrial property nor the granting of any license.



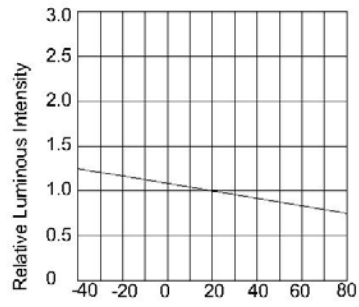
Ambient Temperature TA(°C)  
Forward current  
Derating Curve



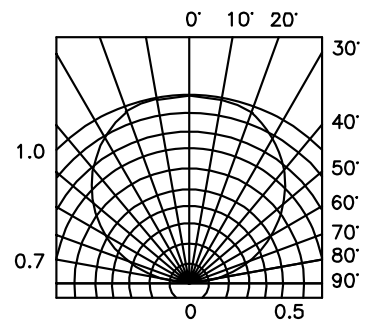
IF-Forward Current (mA)  
Luminous Intensity vs.  
Forward Current



Forward Voltage (V)  
Forward Current VS.  
Forward Voltage



Ambient Temperature Ta(°C)  
Luminous Intensity  
Ambient Temperature

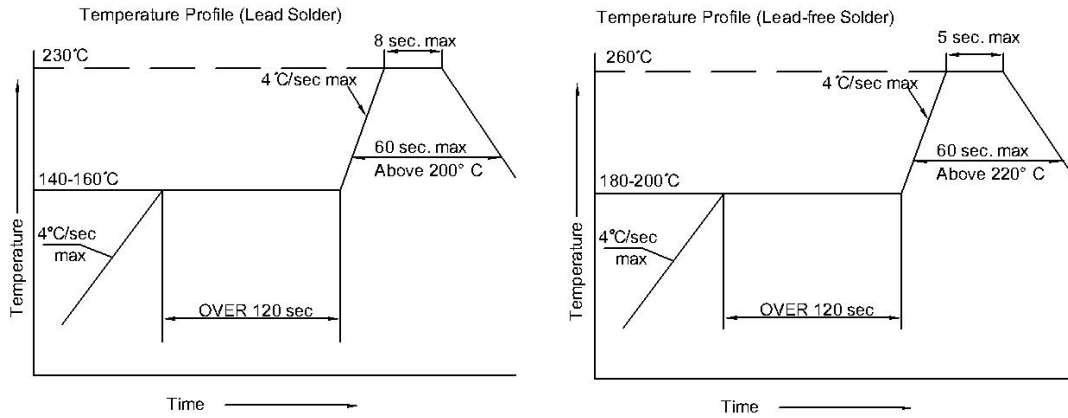


SPATIAL DISTRIBUTION

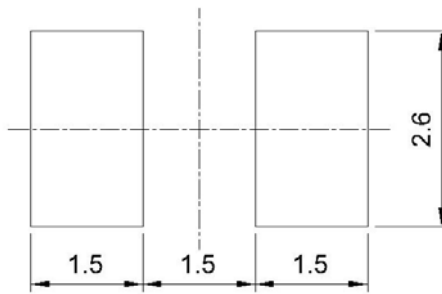
## HH-PLCC3528RC-120

### 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)

