# Kingbright

AP1608SURC   HYPER RED

Features

- 1.6mmx0.8mm SMT LED, 1.1mm THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.

Description

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

Package Dimensions

POLARITY MARK
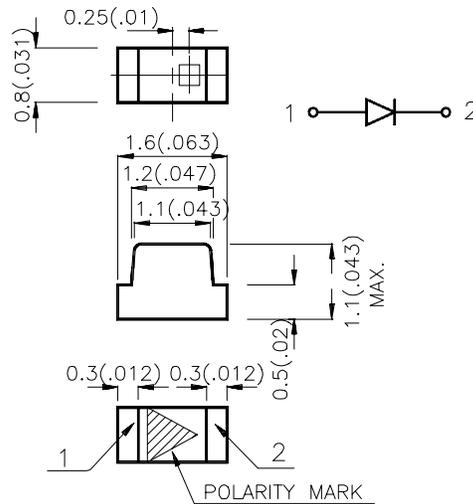
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.1(0.004") unless otherwise noted.
3. Lead spacing is measured where the lead emerge package.
4. Specifications are subject to change without notice.

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Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20 mA		Viewing Angle
			Min.	Typ.	2θ1/2
AP1608SURC	HYPER RED(InGaAlP)	WATER CLEAR	70	150	120°

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

Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red	640		nm	IF=20mA
λD	Dominate Wavelength	Hyper Red	628		nm	IF=20mA
$\Delta\lambda$1/2	Spectral Line Halfwidth	Hyper Red	27		nm	IF=20mA
C	Capacitance	Hyper Red	45		pF	VF=0V;f=1MHz
V_F	Forward Voltage	Hyper Red	1.9	2.5	V	IF=20mA
I_R	Reverse Current	Hyper Red		10	uA	VR = 5V

Absolute Maximum Ratings at T_A=25°C

Parameter	Hyper Red	Units
Power dissipation	170	mW
DC Forward Current	30	mA
Peak Forward Current [1]	185	mA
Reverse Voltage	5	V
Operating Temperature	-40°C To +85°C	
Storage Temperature	-40°C To +85°C	

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

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SUR

RELATIVE INTENSITY Vs. WAVELENGTH

$T_A = 25°C$

Hyper Red AP1608SURC

FORWARD CURRENT Vs
FORWARD VOLTAGE

LUMINOUS INTENSITY Vs.
FORWARD CURRENT

FORWARD CURRENT
DERATING CURVE

SPATIAL DISTRIBUTION

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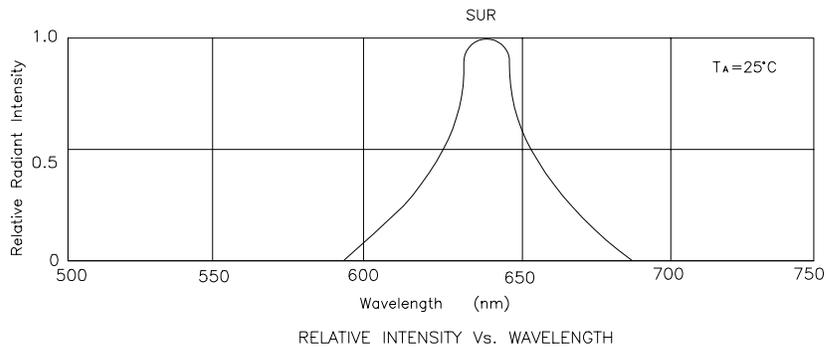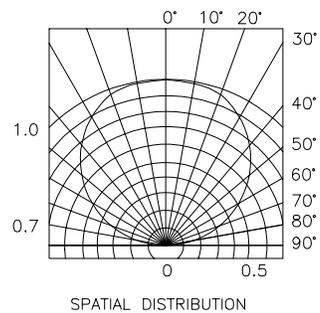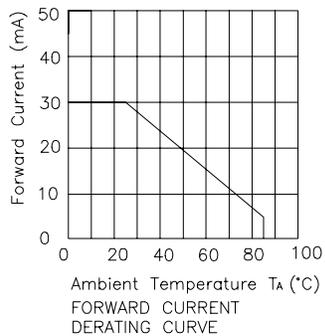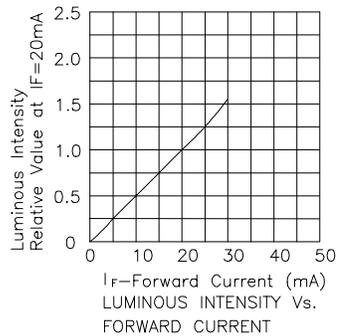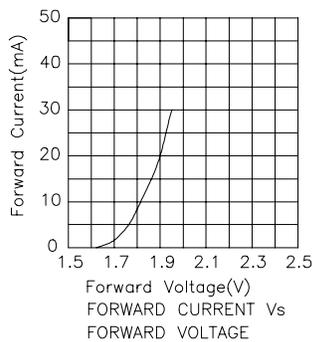
AP1608SURC
SMT Reflow Soldering Instructions

Number of reflow process shall be less than 2 times and cooling
process to normal temperature is required between first and
second soldering process.
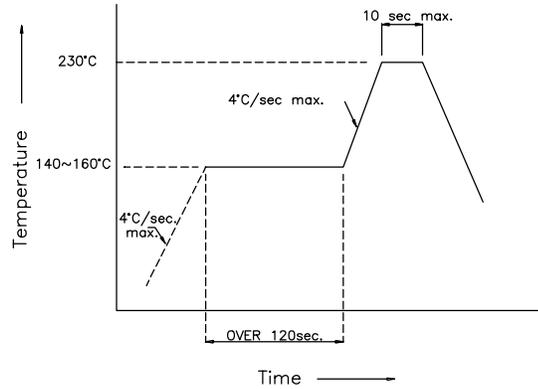
Recommended Soldering Pattern
(Units : mm)
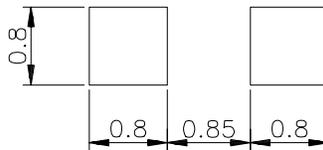
Tape Specifications
(Units : mm)