Kingbright

SUBMINIATURE SOLID STATE LAMP

AM2520SURC08 HYPER RED

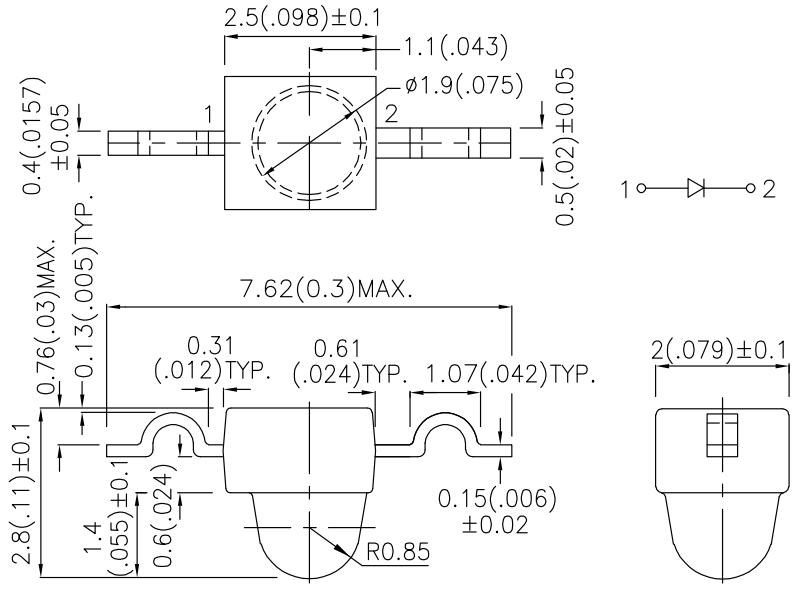
Features

- ●SUBMINIATURE PACKAGE.
- ●WIDE VIEWING ANGLE.
- ●YOKE LEAD.
- ●LONG LIFE - SOLID STATE RELIABILITY.
- ●LOW PACKAGE PROFILE.
- ●PACKAGE : 1000PCS / REEL.
- ●RoHS COMPLIANT.

Description

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

Package Dimensions



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(0.01") unless otherwise noted.
3. Lead spacing is measured where the leads emerge from the package.
4. Specifications are subject to change without notice.

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Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	2θ1/2
AM2520SURC08	HYPER RED (InGaAlP)	WATER CLEAR	280	1000	20°

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

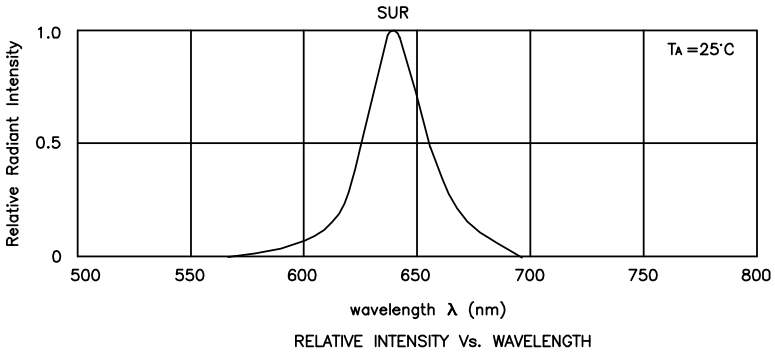
Electrical / Optical Characteristics at T_A=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Hyper Red	640		nm	I_F=20mA
λD	Dominant Wavelength	Hyper Red	628		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	Hyper Red	27		nm	I_F=20mA
C	Capacitance	Hyper Red	45		pF	V_F=0V;f=1MHz
V_F	Forward Voltage	Hyper Red	1.9	2.5	V	I_F=20mA
I_R	Reverse Current	Hyper Red		10	uA	V_R = 5V

Absolute Maximum Ratings at T_A=25°C

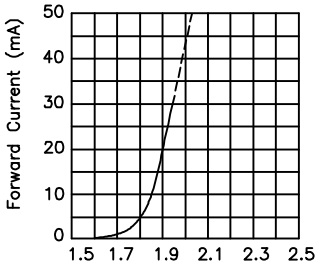
Parameter	Hyper Red	Units
Power dissipation	170	mW
DC Forward Current	30	mA
Peak Forward Current [1]	185	mA
Reverse Voltage	5	V
Operating/Storage Temperature	-40°C To +85°C	

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

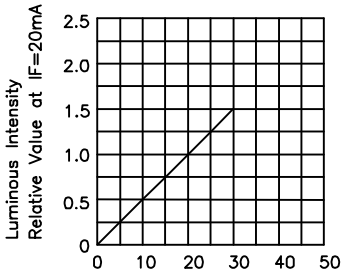


RELATIVE INTENSITY Vs. WAVELENGTH

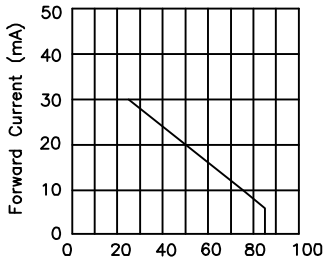
Hyper Red **AM2520SURC08**



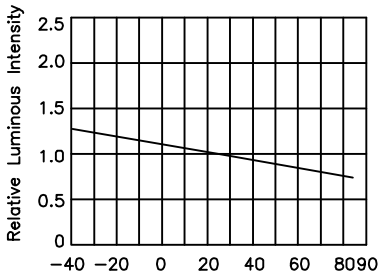
FORWARD CURRENT Vs.
FORWARD VOLTAGE



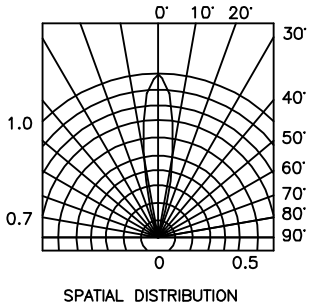
LUMINOUS INTENSITY Vs.
FORWARD CURRENT



FORWARD CURRENT
DERATING CURVE



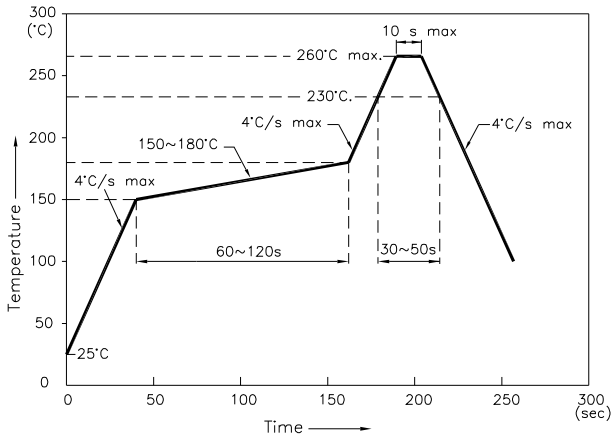
LUMINOUS INTENSITY Vs.
AMBIENT TEMPERATURE



SPATIAL DISTRIBUTION

AM2520SURC08

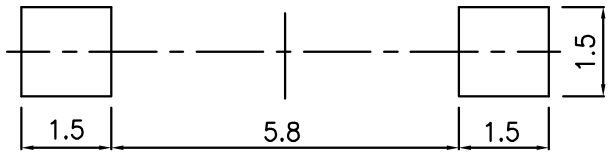
Reflow Soldering Profile For Lead-free SMT Process.



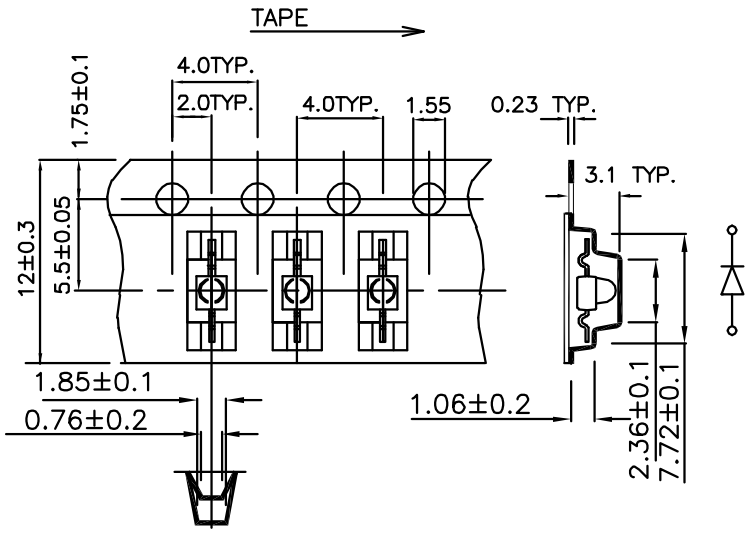
NOTES:

1. We recommend the reflow temperature 245°C(+/−5°C).The maximum soldering temperature should be limited to 260°C.
2. Don't cause stress to the epoxy resin while it is exposed to high temperature.
3. Number of reflow process shall be 2 times or less.

Recommended Soldering Pattern
(Units : mm)



Tape Specifications
(Units : mm)



Remarks:

If there is sorting requirement (eg. forward voltage, luminous intensity or wavelength),the condition as follows:

1.Wavelength: +/-1nm (Test condition is based on the sorting standard).

2.Luminous intensity: +/-15% (Test condition is based on the sorting standard).

3.Forward voltage: +/-0.1V (Test condition is based on the sorting standard).