

PRELIMINARY SPEC

Part Number: KPHM-1608SYCK-5MAV-KM

SUPER BRIGHT YELLOW

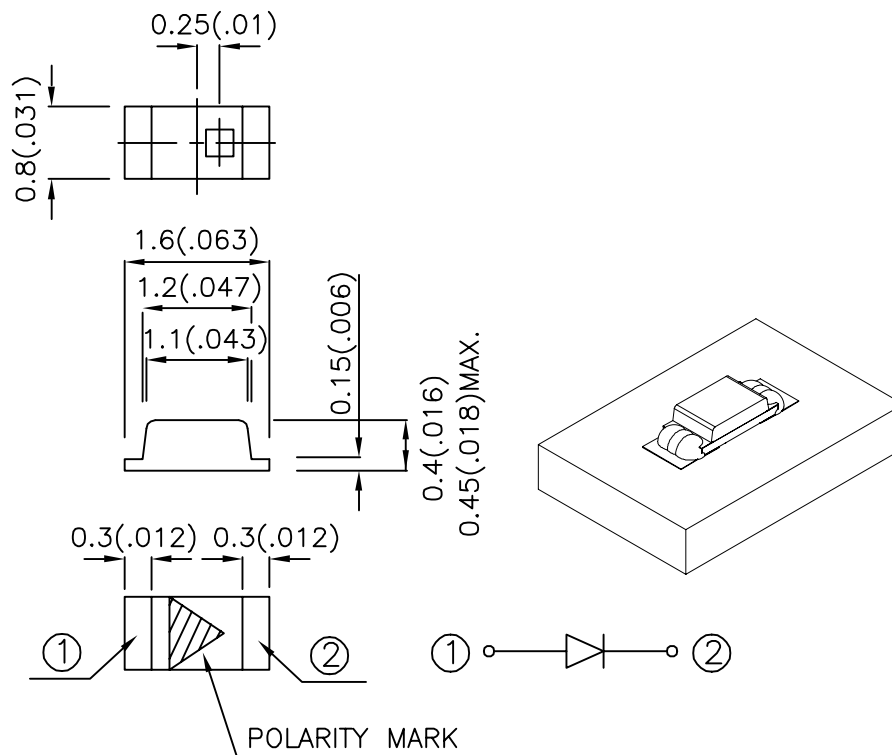
Features

- 1.6mmx0.8mm SMT LED, 0.45mm MAX. THICKNESS.
- LOW POWER CONSUMPTION.
- WIDE VIEWING ANGLE.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- MOISTURE SENSITIVITY LEVEL : LEVEL 3.
- LOW CURRENT IF=5mA OPERATING.
- RoHS COMPLIANT.

Description

The Super Bright Yellow device is made with InGaAlP (on GaAs substrate) light emitting diode chip.

Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.1 (0.004") unless otherwise noted.
3. Specifications are subject to change without notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications



Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) [2] @ 5 mA		Viewing Angle [1]
			Min.	Typ.	2θ1/2
KPHM-1608SYCK-5MAV-KM	SUPER BRIGHT YELLOW (InGaAlP)	WATER CLEAR	8	30	120°

Notes:

1. $\theta_{1/2}$ is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous Intensity / Luminous Flux: $\pm 15\%$.

Electrical / Optical Characteristics at $T_A=25^\circ\text{C}$

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ_{peak}	Peak Wavelength	Super Bright Yellow	590		nm	$I_F=5\text{mA}$
λ_D [1]	Dominant Wavelength	Super Bright Yellow	590		nm	$I_F=5\text{mA}$
$\Delta\lambda_{1/2}$	Spectral Line Half-width	Super Bright Yellow	20		nm	$I_F=5\text{mA}$
C	Capacitance	Super Bright Yellow	20		pF	$V_F=0\text{V}; f=1\text{MHz}$
V_F [2]	Forward Voltage	Super Bright Yellow	1.9	2.5	V	$I_F=5\text{mA}$
I_R	Reverse Current	Super Bright Yellow		10	μA	$V_R = 5\text{V}$

Notes:

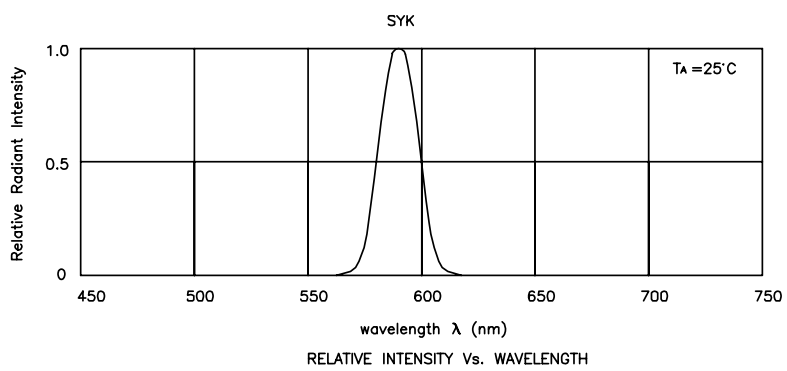
1. Wavelength: $\pm 1\text{nm}$.
2. Forward Voltage: $\pm 0.1\text{V}$.

Absolute Maximum Ratings at $T_A=25^\circ\text{C}$

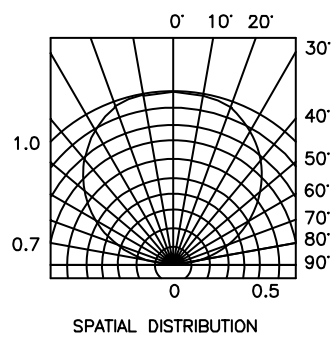
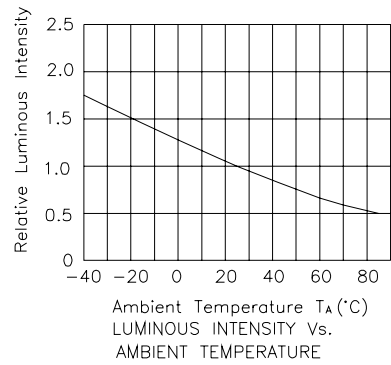
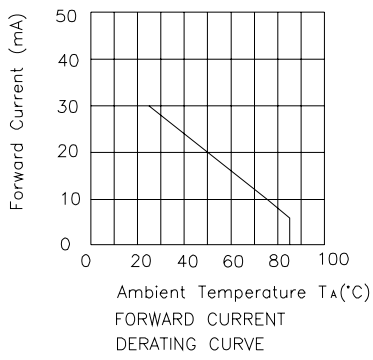
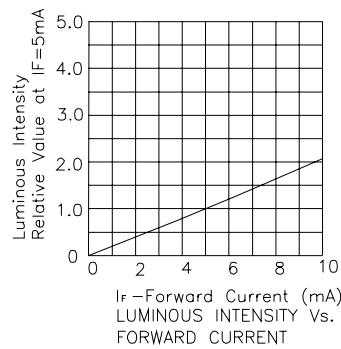
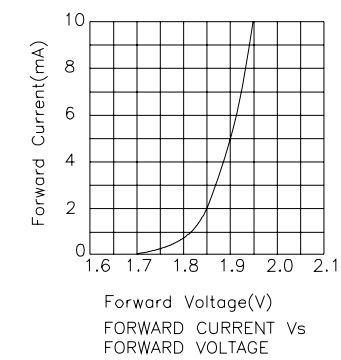
Parameter	Super Bright Yellow	Units
Power dissipation	75	mW
Forward Current	30	mA
Peak Forward Current [1]	175	mA
Reverse Voltage	5	V
Operating / Storage Temperature	-40°C To $+85^\circ\text{C}$	

Note:

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

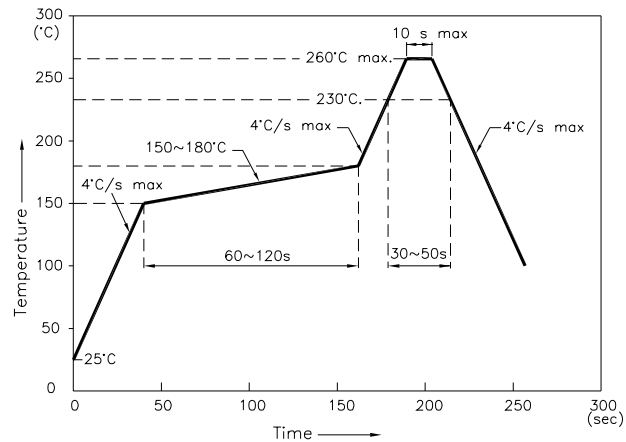


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Reflow Soldering Profile For Lead-free SMT Process.

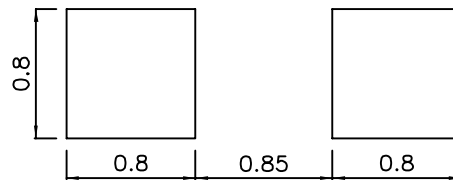


NOTES:

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; Tolerance: ± 0.1)



Tape Specifications

(Units : mm)

