香港至恩科技有限公司
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进口原装，现货供应，价格优势，技术支持
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APB3025EYC-F01

3.0 x 2.5 mm Surface Mount LED Lamp

DESCRIPTIONS

- The High Efficiency Red source color devices are Made with Gallium Arsenide Phosphide on Gallium Phosphide Orange Light Emitting Diode
- The Yellow source color devices are made with Gallium Arsenide Phosphide on Gallium Phosphide Yellow Light Emitting Diode

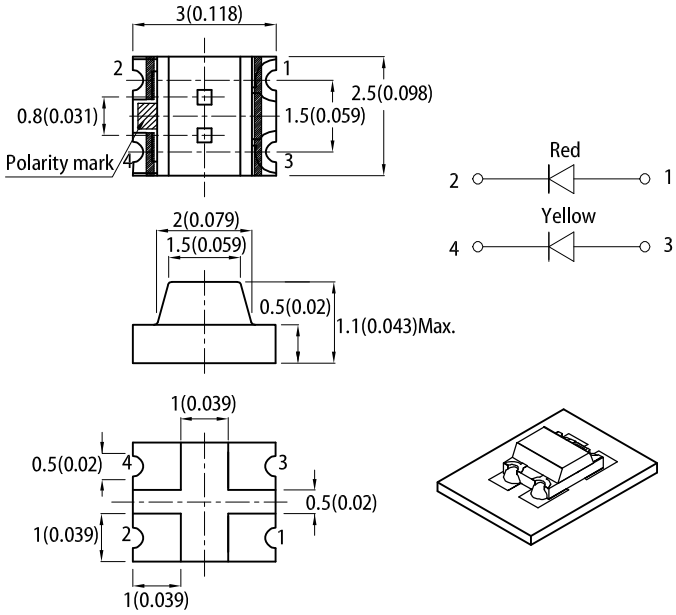
FEATURES

- 3.0 mm x 2.5 mm SMD LED, 1.1 mm thickness
- Bi -color, low power consumption
- Wide viewing angle
- Ideal for backlight and indicator
- Package: 2000 pcs / reel
- Moisture sensitivity level: 3
- RoHS compliant

APPLICATIONS

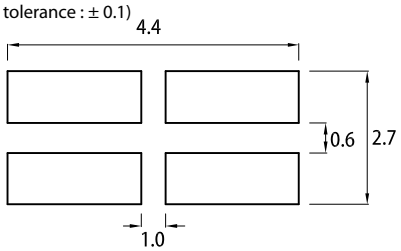
- Backlight
- Status indicator
- Home and smart appliances
- Wearable and portable devices
- Healthcare applications

PACKAGE DIMENSIONS



RECOMMENDED SOLDERING PATTERN

(units : mm; tolerance : ± 0.1)



Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2(0.008") unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.
4. The device has a single mounting surface. The device must be mounted according to the specifications.

SELECTION GUIDE

Part Number	Emitting Color (Material)	Lens Type	Iv (mcd) @ 20mA [2]		Viewing Angle [1]
			Min.	Typ.	2θ1/2
APB3025EYC-F01	High Efficiency Red (GaAsP/GaP)	Water Clear	8	15	160°
			*3	*8	
	Yellow (CaAsP/GaP)		5	10	
			*5	*10	

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 of the optical peak value.
2. Luminous intensity / luminous flux: +/-15%.
** Luminous intensity value is traceable to CIE127-2007 standards.*

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ELECTRICAL / OPTICAL CHARACTERISTICS at T_A=25°C

Parameter	Symbol	Emitting Color	Value		Unit
			Typ.	Max.	
Wavelength at Peak Emission I_F = 20mA	λ_{peak}	High Efficiency Red Yellow	627 590	-	nm
Dominant Wavelength I_F = 20mA	λ_{dom} [1]	High Efficiency Red Yellow	617 588	-	nm
Spectral Bandwidth at 50% Φ REL MAX I_F = 20mA	Δλ	High Efficiency Red Yellow	45 35	-	nm
Capacitance	C	High Efficiency Red Yellow	15 20	-	pF
Forward Voltage I_F = 20mA	V_F [2]	High Efficiency Red Yellow	2 2.1	2.5 2.5	V
Reverse Current (V_R = 5V)	I_R	High Efficiency Red Yellow	-	10 10	uA

Notes:
1. The dominant wavelength (λd) above is the setup value of the sorting machine. (Tolerance λd : ±1nm.)
2. Forward voltage: ±0.1V.
3. Wavelength value is traceable to CIE127-2007 standards.
4. Excess driving current and / or operating temperature higher than recommended conditions may result in severe light degradation or premature failure.

ABSOLUTE MAXIMUM RATINGS at T_A=25°C

Parameter	Symbol	Value		Unit
		High Efficiency Red	Yellow	
Power Dissipation	P_D	75	75	mW
Reverse Voltage	V_R	5	5	V
Junction Temperature	T_J	125	110	°C
Operating Temperature	T_{op}	-40 To +85		°C
Storage Temperature	T_{stg}	-40 To +85		°C
DC Forward Current	I_F	30	30	mA
Peak Forward Current	I_{FM} [1]	160	140	mA
Electrostatic Discharge Threshold (HBM)	-	8000	8000	V

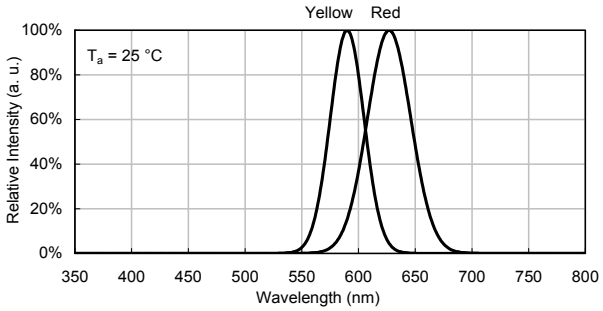
Notes:
1. 1/10 Duty Cycle, 0.1ms Pulse Width.
2. Relative humidity levels maintained between 40% and 60% in production area are recommended to avoid the build-up of static electricity – Ref JEDEC/JESD625-A and JEDEC/J-STD-033.

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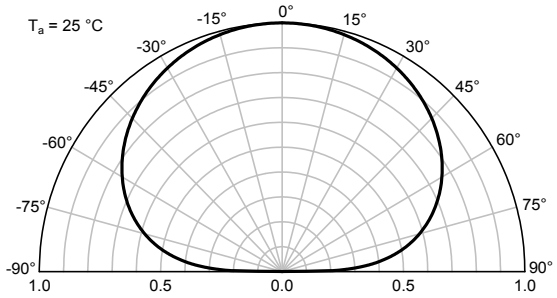
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TECHNICAL DATA

RELATIVE INTENSITY vs. WAVELENGTH

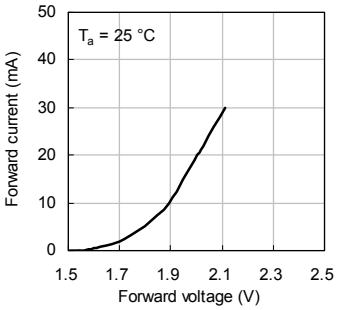


SPATIAL DISTRIBUTION

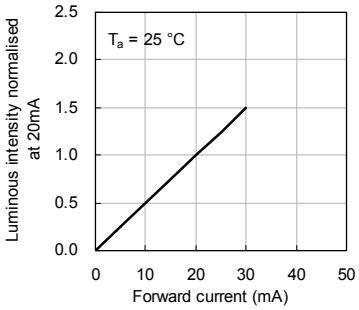


HIGH EFFICIENCY RED

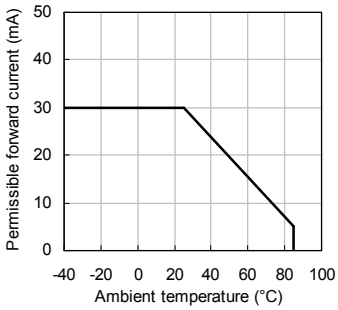
Forward Current vs. Forward Voltage



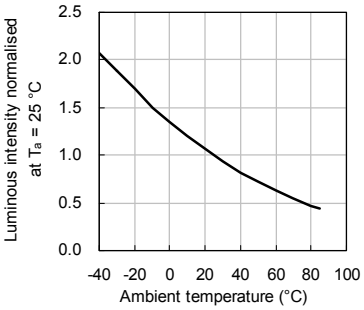
Luminous Intensity vs. Forward Current



Forward Current Derating Curve

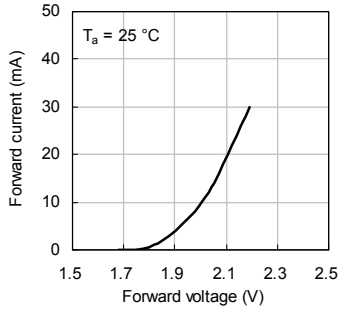


Luminous Intensity vs. Ambient Temperature

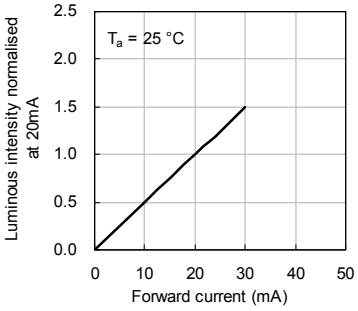


YELLOW

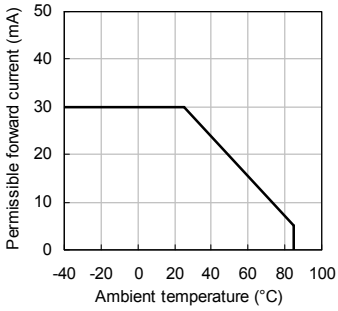
Forward Current vs. Forward Voltage



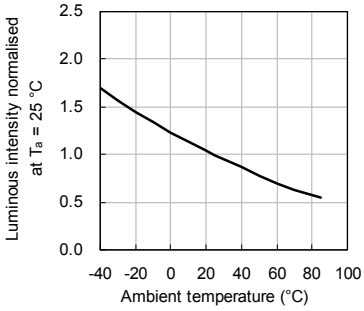
Luminous Intensity vs. Forward Current



Forward Current Derating Curve



Luminous Intensity vs. Ambient Temperature

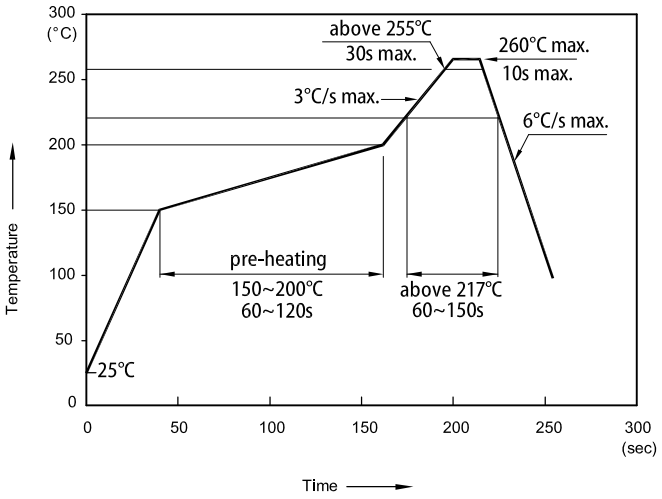


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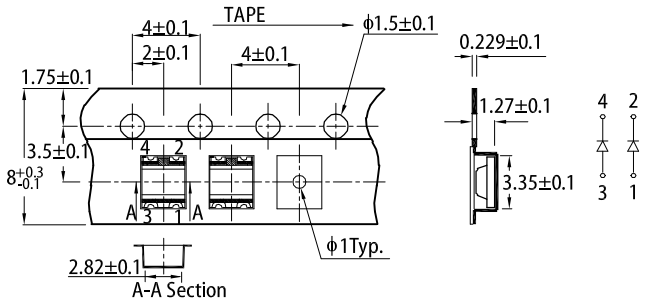
TECHNICAL DATA

REFLOW SOLDERING PROFILE for LEAD-FREE SMD PROCESS

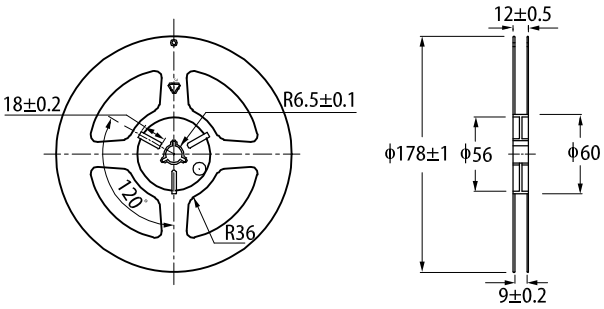


Notes:
1. *Don't cause stress to the LEDs while it is exposed to high temperature.*
2. *The maximum number of reflow soldering passes is 2 times.*
3. *Reflow soldering is recommended. Other soldering methods are not recommended as they might cause damage to the product.*

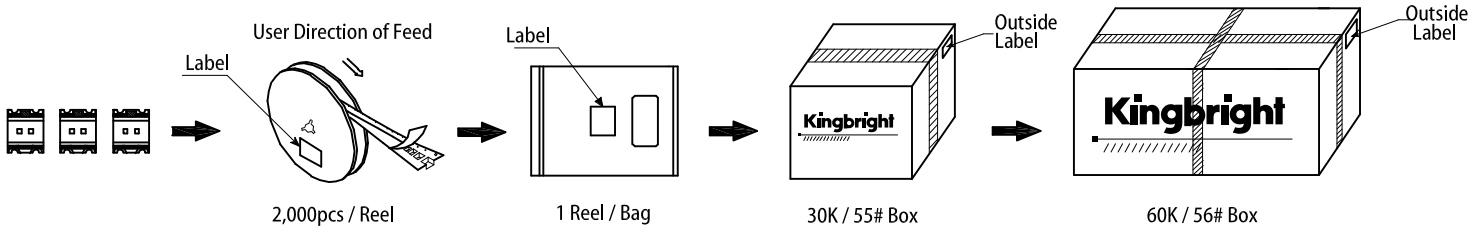
TAPE SPECIFICATIONS (units : mm)

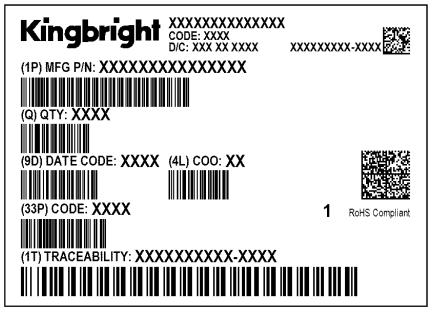


REEL DIMENSION (units : mm)



PACKING & LABEL SPECIFICATIONS





PRECAUTIONARY NOTES

1. The information included in this document reflects representative usage scenarios and is intended for technical reference only.
2. The part number, type, and specifications mentioned in this document are subject to future change and improvement without notice. Before production usage customer should refer to the latest datasheet for the updated specifications.
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