Kingbright

3.5x2.0mm SMD CHIP LED LAMP

Part Number: KPK-3520TGC   Green

ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

Features

● 3.5mmX2.0mm SMT LED, 1.3mm 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 4.
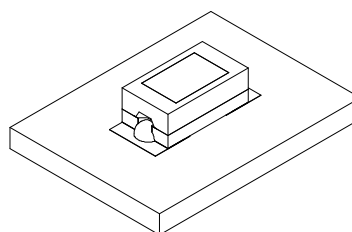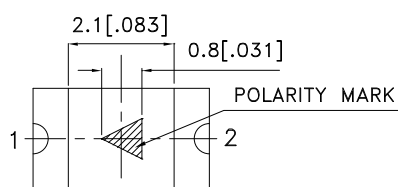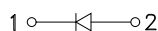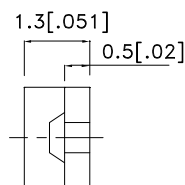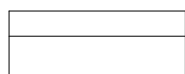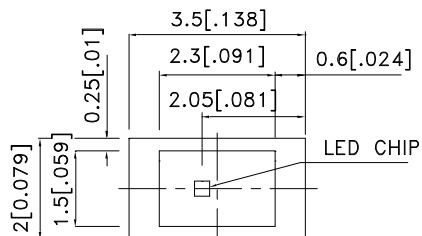
● RoHS COMPLIANT.

Description

The Green source color devices are made with InGaN on SiC Light Emitting Diode.

Static electricity and surge damage the LEDS.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

All devices, equipment and machinery must be electrically grounded.

Package Dimensions

Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.2(0.008") 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.

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Selection Guide

| Part No. | Dice | Lens Type | Iv (mcd) [2] @ 20mA | | Viewing Angle [1] |
			Min.	Typ.	2θ1/2
KPK-3520TGC	Green (InGaN)	WATER CLEAR	50	150	120°

Notes:
1. θ1/2 is the angle from optical centerline where the luminous intensity is 1/2 the optical centerline value.
2. Luminous intensity/ luminous Flux: +/-15%.

Electrical / Optical Characteristics at TA=25°C

Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λpeak	Peak Wavelength	Green	505		nm	I_F=20mA
λD [1]	Dominant Wavelength	Green	507		nm	I_F=20mA
Δλ1/2	Spectral Line Half-width	Green	32		nm	I_F=20mA
C	Capacitance	Green	38		pF	V_F=0V;f=1MHz
V_F [2]	Forward Voltage	Green	3.2	3.8	V	I_F=20mA
I_R	Reverse Current	Green		10	uA	V_R=5V

Notes:
1. Wavelength: +/-1nm.
2. Forward Voltage: +/-0.1V.

Absolute Maximum Ratings at TA=25°C

Parameter	Green	Units
Power dissipation	114	mW
DC Forward Current	30	mA
Peak Forward Current [1]	100	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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RELATIVE INTENSITY Vs. WAVELENGTH

$T_A = 25°C$

Green   **KPK-3520TGC**

FORWARD CURRENT Vs. FORWARD VOLTAGE

LUMINOUS INTENSITY Vs. FORWARD CURRENT

FORWARD CURRENT DERATING CURVE

LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE

SPATIAL DISTRIBUTION

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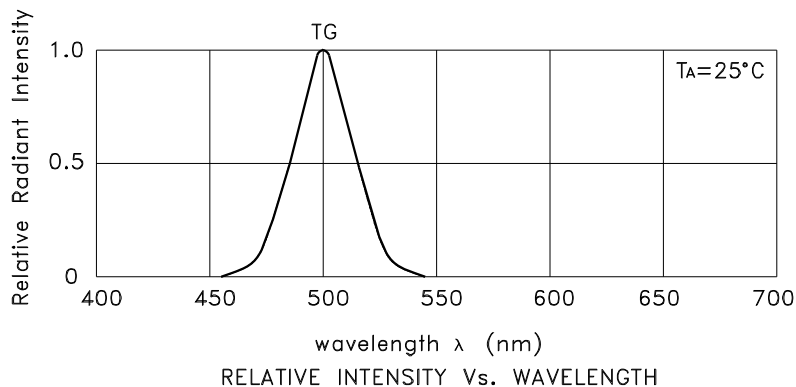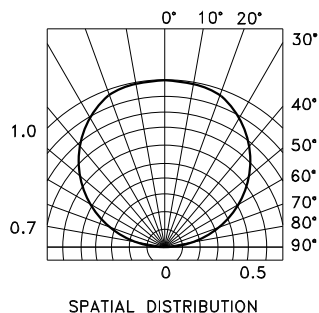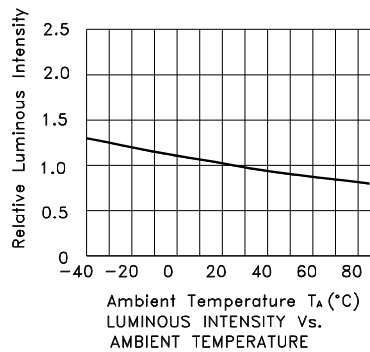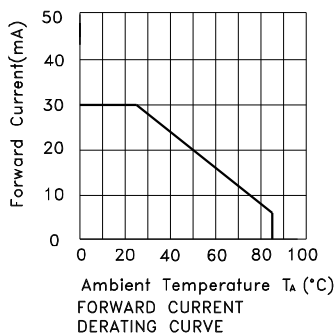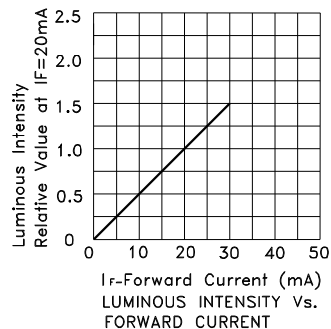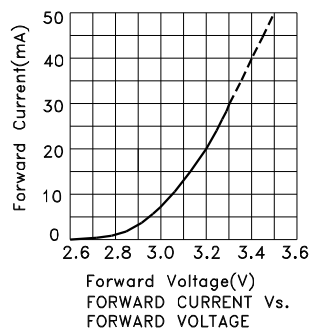
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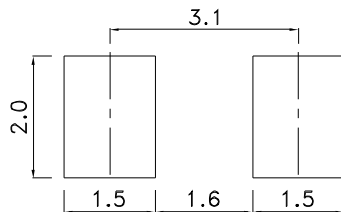
Reflow Soldering Profile For Lead-free SMT Process.

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)