



ATTENTION
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES

KPHF-1612QBDSURKZGC

BLUE
HYPER RED
GREEN

Features

- 1.6x1.26mm SMT LED, 0.52mm THICKNESS.
- LOW POWER CONSUMPTION.
- IDEAL FOR BACKLIGHT AND INDICATOR.
- VARIOUS COLORS AND LENS TYPES AVAILABLE.
- PACKAGE : 2000PCS / REEL.
- RoHS COMPLIANT.

Description

The Blue source color devices are made with GaN on Sapphire Light Emitting Diode.

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

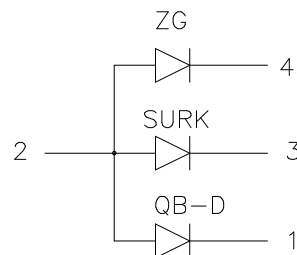
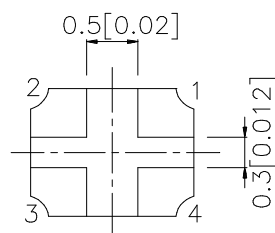
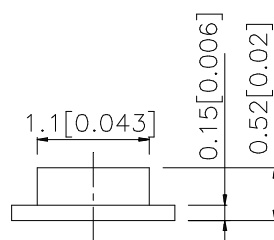
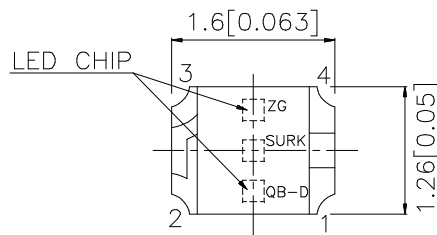
The Green source color devices are made with AlInGaN on Sapphire Light Emitting Diode.

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.

Selection Guide

Part No.	Dice	Lens Type	Iv (mcd) @ 20mA		Viewing Angle
			Min.	Typ.	2θ1/2
KPHF-1612QBDSURKZGC	BLUE (GaN)	WATER CLEAR	50	90	120°
	HYPERS RED (InGaAlP)		70	150	
	GREEN (AlInGaN)		70	180	

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 TA=25°C

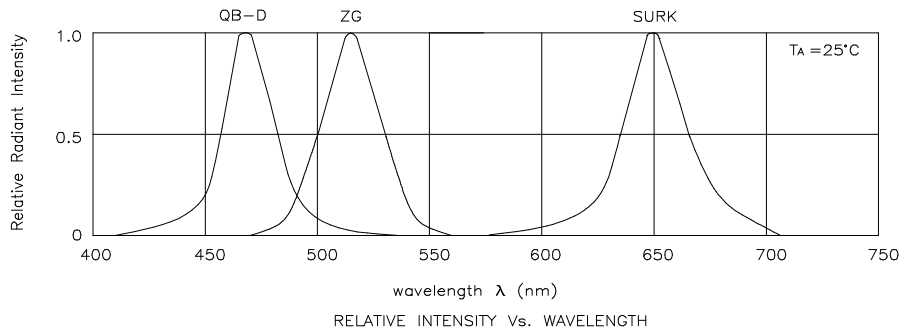
Symbol	Parameter	Device	Typ.	Max.	Units	Test Conditions
λ _{peak}	Peak Wavelength	Blue Hyper Red Green	468 650 515		nm	I _F =20mA
λ _D	Dominant Wavelength	Blue Hyper Red Green	470 635 525		nm	I _F =20mA
Δλ _{1/2}	Spectral Line Half-width	Blue Hyper Red Green	25 28 30		nm	I _F =20mA
C	Capacitance	Blue Hyper Red Green	100 35 45		pF	V _F =0V;f=1MHz
V _F	Forward Voltage	Blue Hyper Red Green	3.5 1.95 3.3	4.0 2.5 4.1	V	I _F =20mA
I _R	Reverse Current	All		10	μA	V _R = 5V

Absolute Maximum Ratings at TA=25°C

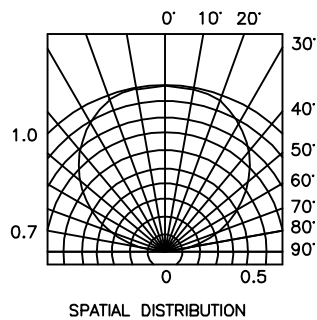
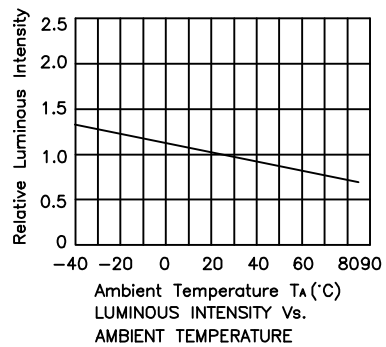
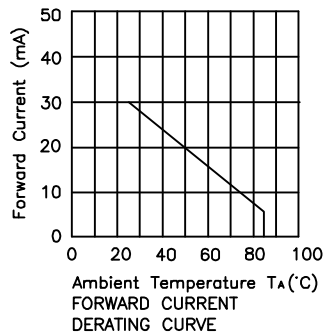
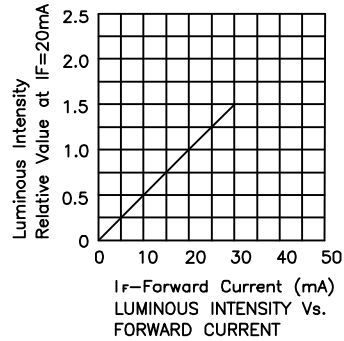
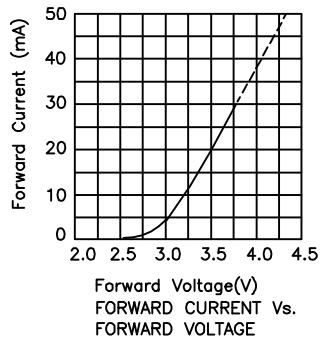
Parameter	Blue	Hyper Red	Green	Units
Power dissipation	105	170	105	mW
DC Forward Current	30	30	25	mA
Peak Forward Current [1]	150	185	150	mA
Reverse Voltage	5			V
Operating/Storage Temperature	-40°C To +85°C			

Note:

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

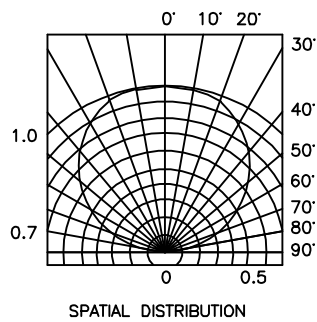
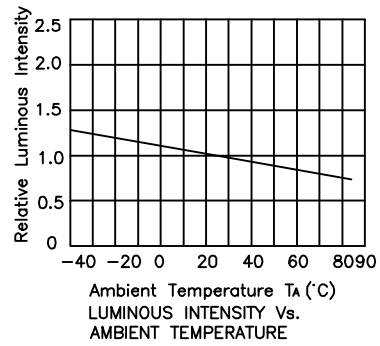
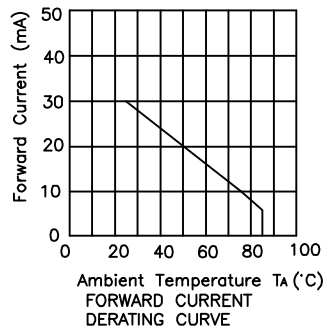
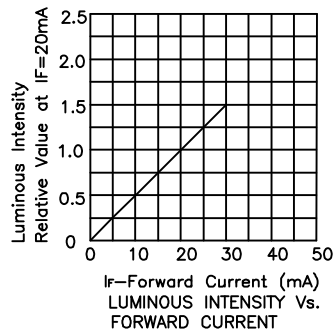
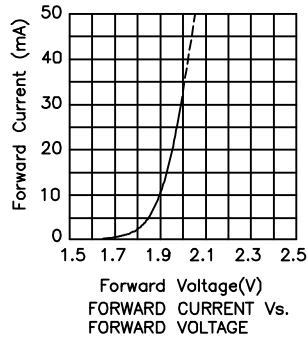


KPHF-1612QBDSURKZGC Blue



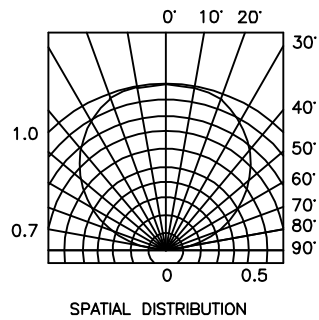
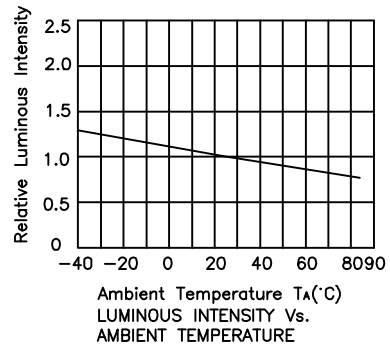
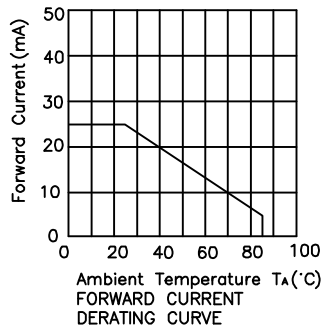
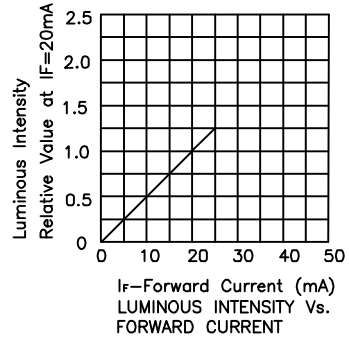
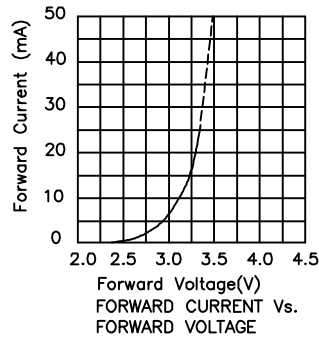
Kingbright

Hyper Red



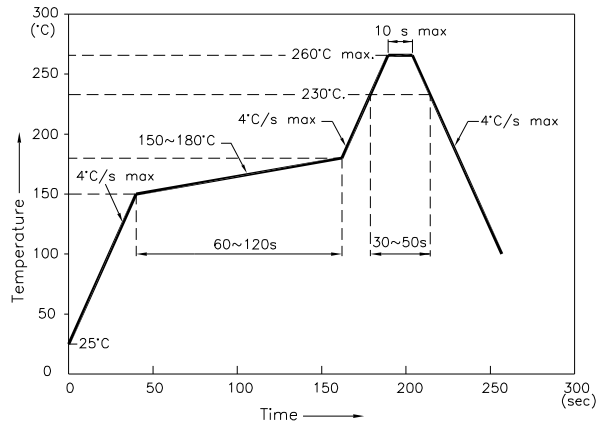
Kingbright

Green



KPHF-1612QBDSURKZGC

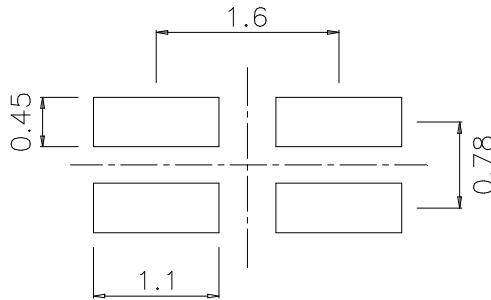
Reflow Soldering Profile For Lead-free SMT Process.



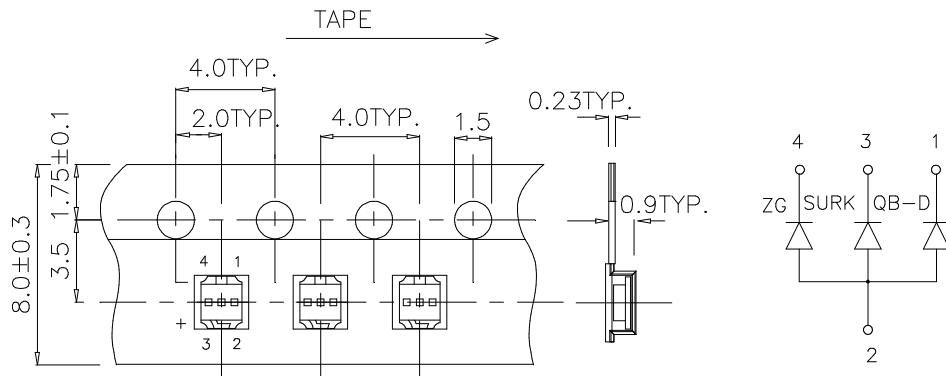
NOTES:

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 special sorting is required (e.g. binning based on forward voltage, luminous intensity, or wavelength), the typical accuracy of the sorting process is as follows:

1. Wavelength: +/-1nm
2. Luminous Intensity: +/-15%
3. Forward Voltage: +/-0.1V

Note: Accuracy may depend on the sorting parameters.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Standard LEDs - SMD category](#):

Click to view products by [Kingbright manufacturer](#):

Other Similar products are found below :

[LTST-C19GD2WT](#) [LTST-N683GBEW](#) [597-3006-607F](#) [LTW-170ZDC](#) [597-3403-607F](#) [LTW-K140SZR40](#) [LTW-M140ZVS](#) [598-8110-100F](#)
[598-8170-100F](#) [598-8610-202F](#) [7012X7](#) [AAAF5060QBFSEEZGS](#) [1383SURT/S530-A3/TR1\(R\)](#) [APT1608QGW](#) [EASV1803BA0](#)
[SML310BATT86](#) [SML-512VWT86A](#) [SML-LX0606SISUGC/A](#) [SML-LXL1307SRC-TR](#) [SML-LXR851SIUPGUBC](#) [LT1ED53A](#) [FAT801-S](#)
[SSL-LXA227IC-TR31A](#) [AM27ZGC03](#) [APB3025SGNC](#) [APFA3010SURKCGKQBDC](#) [APHK1608VGCA](#) [APT2012QGW](#) [CLMVC-FKA-](#)
[CA1E1L81BB7C3C3](#) [CLYBA-FKA-CFHHL9BBB7A363](#) [CMD11504UR](#) [LTST-C250KGKT](#) [LTW-020ZDCG](#) [LTW-21TS5](#) [LTW-](#)
[K140SZR30](#) [HSMY-C177](#) [UYGT801-S](#) [KVH1C100MF6R](#) [YGFR411-H](#) [597-2311-402F](#) [597-2712-602F](#) [5973212407NF](#) [597-3302-607F](#)
[597-5202-407F](#) [598-8330-117F](#) [SAW8WA2A-L35M40-CA](#) [SML013WBDW1](#) [SML522BUWT86](#) [SML-LX0402IC-TR](#) [CLMVC-FKA-](#)
[CLBDGL7LBB79353](#)