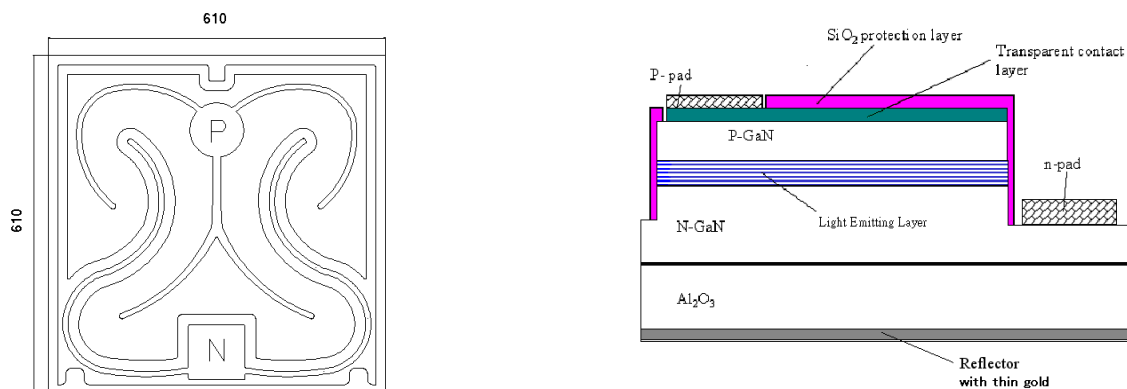




**MKO 24 x 24 mil 520-535nm
Power Chip MKO2424C5XX-M**

LED Chip Diagram:



Mechanical Dimensions :

Chip size	610 (-10/+30) μ m \times 610 (-10/+30) μ m
Chip thickness	150 \pm 10 μ m
Au Pad thickness	2.4 \pm 0.2 μ m
Au Pad diameter	P: 100 μ m / N: 110 μ m

Features:

- Thin Gold coating on back of chip compatible with Solder Paste, Solder Preform or Silver Epoxy
- Epitaxy is MOCVD grown on sapphire (0001)
- Chips are 100% tested and sorted by dominant wavelength, optical power output, and forward voltage
- Chips are delivered on medium tack blue tape (20cm \pm 10mm \times 20 cm \pm 10mm)

Definitions of Part Numbers, Bins, and Kits:

BridgeLux LED chips are sorted into the brightness and dominant wavelength bins shown below at $I_f=120$ mA. Each blue tape will contain die from only one brightness bin and one wavelength bin. Customer orders for kit number MKO2424CGRN, may consist of a combination of dies from some or all bins within that kit. Additionally, all chips are sorted with forward voltage bins range from 3.0-3.5V, 3.5-3.7V and 3.7-3.9V on each tape.



**MKO 24 x 24 mil 520-535nm
Power Chip MKO2424C5XX-M**

MKO2424CGRN

520 to 525 nm	MKO2424C520-1	MKO2424C520-2	MKO2424C520-3
525 to 530 nm	MKO2424C525-1	MKO2424C525-2	MKO2424C525-3
530 to 535 nm	MKO2424C530-1	MKO2424C530-2	MKO2424C530-3
	19 – 25 mW	25 – 33 mW	33 –43mW

Binning @ forward current of 120 mA.

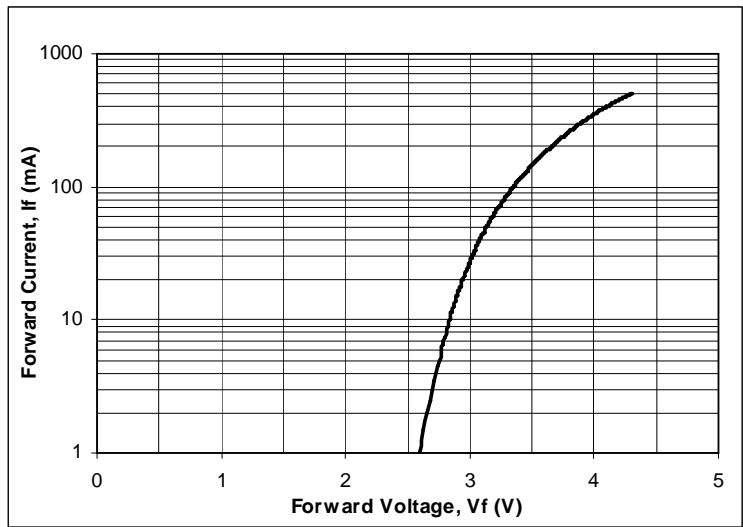


Fig. 1 Forward Current vs. Forward Voltage

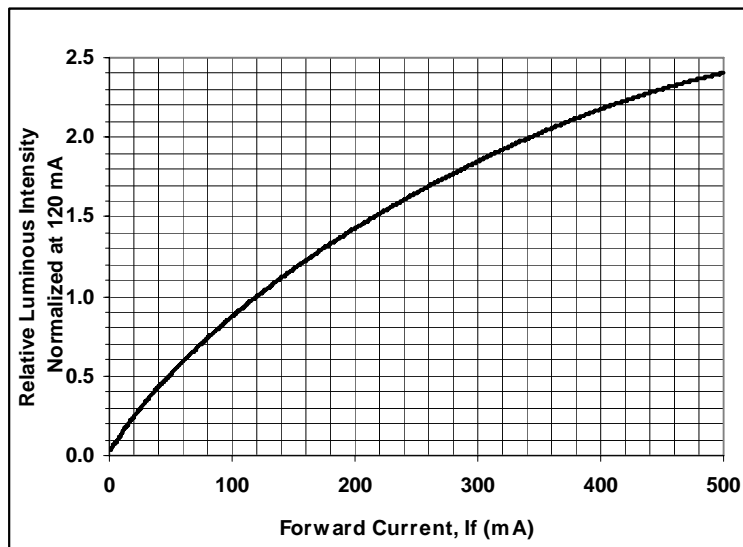


Fig. 2 Relative Luminous Intensity vs. Forward Current
(Device is tested under a probe station)



**MKO 24 x 24 mil 520-535nm
Power Chip MKO2424C5XX-M**

Absolute maximum ratings:

Parameter	Symbol	Condition	Rating
Forward DC Current	I_f	$T_j=125^{\circ}\text{C}$	200mA ⁽¹⁾
Reverse voltage	V_r	$T_a=25^{\circ}\text{C}$	-5V
Junction Temperature	T_j		150 °C
Reverse Current	I_r	$V_r = -5 \text{ V}$	<10 μA
Assembly Process Temp.			325°C(<5 sec)

⁽¹⁾maximum driving current depends on junction temperature, die attach methods/materials, and lifetime requirements of the customer’s application.

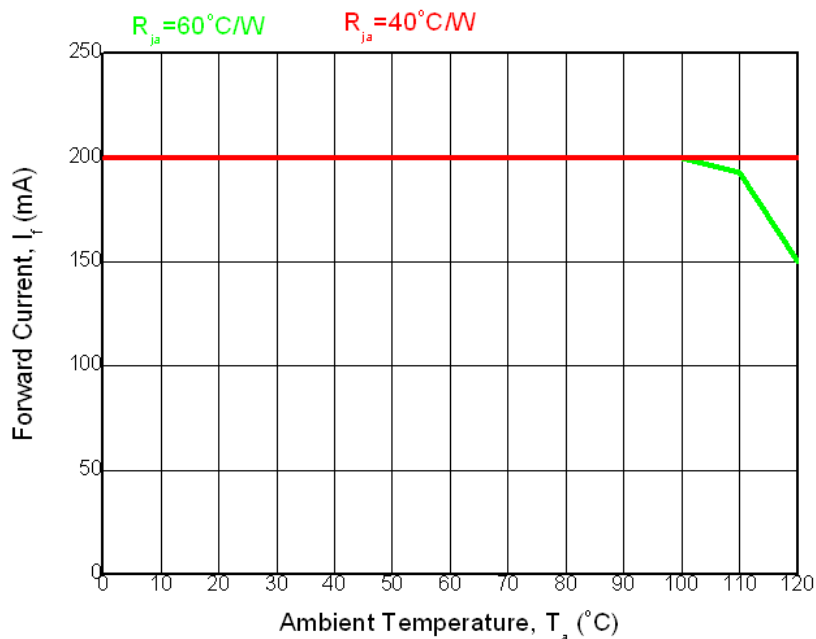


Fig. 3 Maximum derating forward DC current vs. Ambient Temperature.
Derating based on $T_j(\text{max})=150^{\circ}\text{C}$

Remarks:

1. BridgeLux GaN LEDs are Class 1 ESD sensitive.
2. Please consult the BridgeLux technical service team for information on how to optimize the light output of your package.
3. Brightness values are measured in an integrating sphere using Au plated TO39 headers without an encapsulant.
4. Forward voltage (V_f) is sorted into three bins from 3.0-3.5V, 3.5-3.7V and 3.7-3.9V