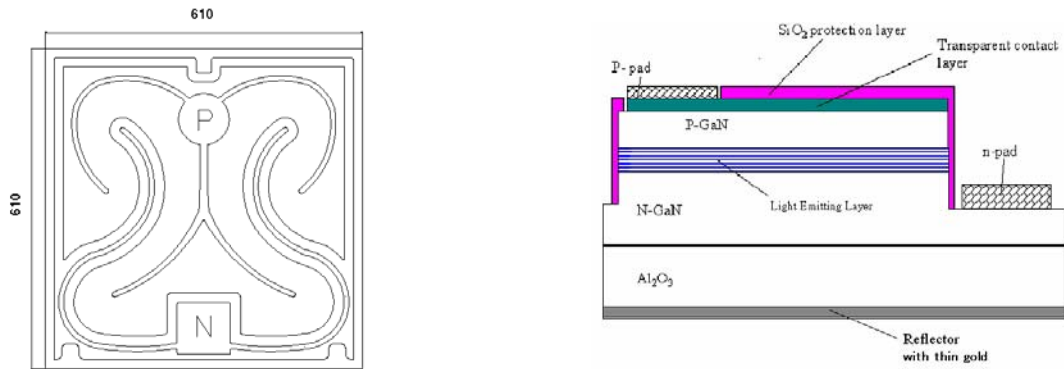




**MKO 24 x 24 mil
Power Chip MKO2424CXXX-M**

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)
- Product applications include camera flash, torch, general illumination, LCD panel backlight, and automotive lighting

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 numbers MKO2424CBLL, MKO2424CBLM and MKO2424CBLH, 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
Power Chip MKO2424CXXX-M**

MKO2424CBLL

450 to 452.5nm	MKO2424C450-2	MKO2424C450-3	MKO2424C450-4
452.5 to 455nm	MKO2424C452-2	MKO2424C452-3	MKO2424C452-4
455 to 457.5nm	MKO2424C455-2	MKO2424C455-3	MKO2424C455-4
457.5 to 460nm	MKO2424C457-2	MKO2424C457-3	MKO2424C457-4
	57 – 65 mW	65 – 75 mW	75 –87mW

MKO2424CBLM

460 to 462.5nm	MKO2424C460-1	MKO2424C460-2	MKO2424C460-3
462.5 to 465nm	MKO2424C462-1	MKO2424C462-2	MKO2424C462-3
465 to 467.5nm	MKO2424C465-1	MKO2424C465-2	MKO2424C465-3
467.5 to 470nm	MKO2424C467-1	MKO2424C467-2	MKO2424C467-3
	50 - 57 mW	57 – 65 mW	65 – 75 mW

MKO2424CBLH

470 to 472.5nm	MKO2424C470-0	MKO2424C470-1	MKO2424C470-2
472.5 to 475nm	MKO2424C472-0	MKO2424C472-1	MKO2424C472-2
475 to 477.5nm	MKO2424C475-0	MKO2424C475-1	MKO2424C475-2
477.5 to 480nm	MKO2424C477-0	MKO2424C477-1	MKO2424C477-2
	43 - 50 mW	50 - 57 mW	57 – 65 mW

Binning @ forward current of 120 mA.



**MKO 24 x 24 mil
Power Chip MKO2424CXXX-M**

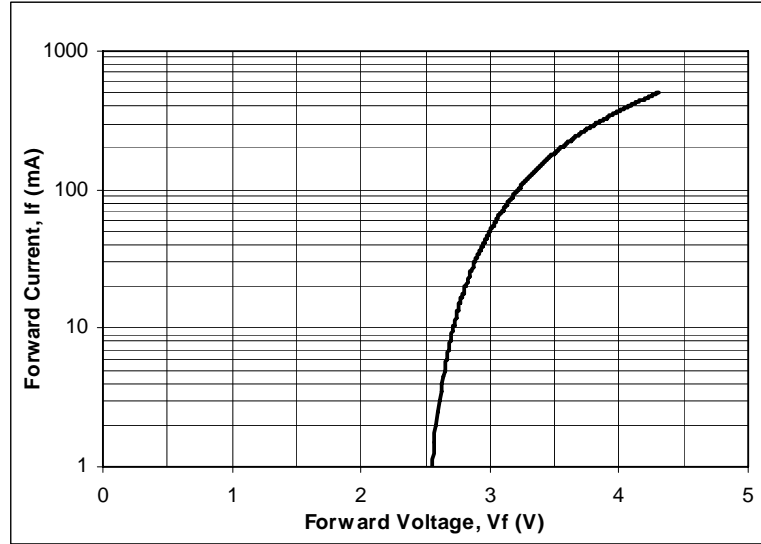


Fig. 1 Forward Current vs. Forward Voltage

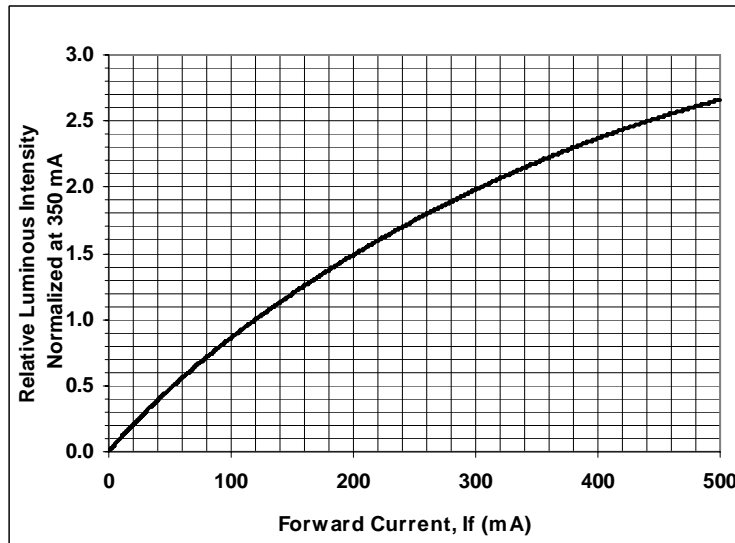


Fig. 2 Relative Luminous Intensity vs. Forward Current
(Device is tested under a probe station)



**MKO 24 x 24 mil
Power Chip MKO2424CXXX-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.

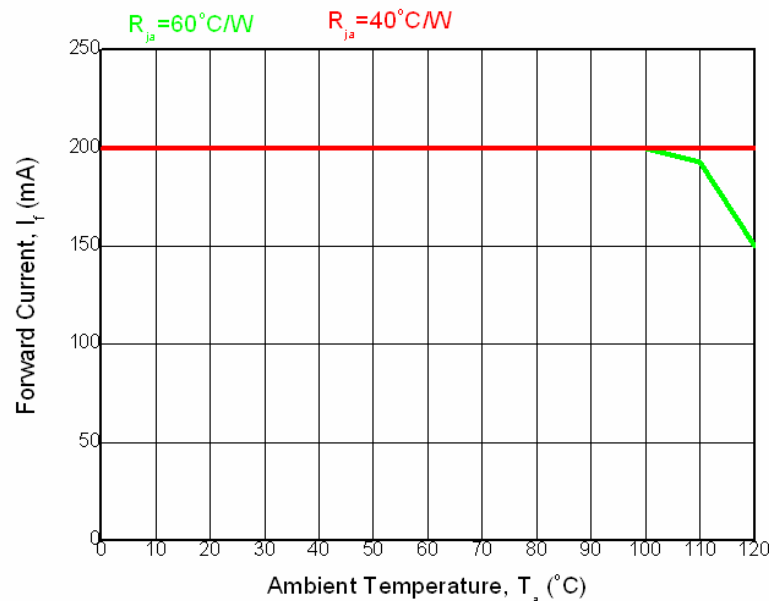


Fig. 3 Maximum derating forward DC current vs. Ambient Temperature.
Derating based on $T_j(\text{max})=150^{\circ}\text{C}$

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