



## LED Product Line

### LOW CURRENT GaN LEDs

	Brightness (mW)		Color	Peak Wavelength (nm)			Forward Voltage		ESD Rating	Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max		
C430-CB230-E1000	.425	.650	Blue	426	428	430	4.0	4.5	Class II	See Fig. 1

All measurements taken at 10mA.

### LOW CURRENT InGaN LEDs

	Brightness (mW)		Color	Dominant Wavelength (nm)			Forward Voltage		ESD Rating	Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max		
C460-CB230-E1000	1.0	1.3	Deep Blue	455	460	465	3.5	3.7	Class II	See Fig. 1
C470-CB230-E1000	1.0	1.3	Blue	465	470	475	3.5	3.7	Class II	See Fig. 1
C525-CB230-E1000	.500	.650	Green	520	525	535	3.5	3.7	Class II	See Fig. 1

All measurements taken at 10mA.

### STANDARD BRIGHTNESS LEDs

	Brightness (mW)		Color	Peak Wavelength (nm)			Forward Voltage		ESD Rating	Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max		
C430-CB290-E1000	.850	1.1	Blue	426	428	430	4.0	4.5	Class II	See Fig. 2

All measurements taken at 20mA.

### SUPERBRIGHT™ InGaN LEDs

	Brightness (mW)		Color	Dominant Wavelength (nm)			Forward Voltage		ESD Rating	Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max		
C450-CB290-E1000	2.5	3.5	Deep Blue	445	450	455	3.3	3.7	Class II	See Fig. 2
C460-CB290-E1000	2.0	3.0	Deep Blue	455	460	465	3.3	3.7	Class II	See Fig. 2
C470-CB290-E1000	2.0	2.5	Blue	465	470	475	3.3	3.7	Class II	See Fig. 2
C490-CB290-E1000	2.0	2.5	Aqua Blue	485	490	495	3.3	3.7	Class II	See Fig. 2
C505-CB290-E1000	1.5	2.0	Traffic Green	500	505	510	3.3	3.7	Class II	See Fig. 2
C525-CB290-E1000	1.0	1.5	Green	520	525	535	3.3	3.7	Class II	See Fig. 2

All measurements taken at 20mA.

### ULTRABRIGHT™ GaN LEDs



	Brightness (mW)		Color	Peak Wavelength (nm)			Forward Voltage		ESD Rating	Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max		
C430-UB290-E1000	1.4	2.0	Blue	426	428	430	4.2	4.7	Class II	See Fig. 3

All measurements taken at 20mA.

#### ULTRABRIGHT™ InGaN LEDs

	Brightness (mW)		Color	Dominant Wavelength (nm)			Forward Voltage		ESD Rating	Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max		
C460-UB290-E1000	3.8	5.5	Deep Blue	455	460	465	3.5	3.9	Class II	See Fig. 3
C460-UB291-E1000	3.8	5.5	Deep Blue	455	460	465	3.5	3.9	Class II	See Fig. 2
C470-UB290-E1000	3.4	5.0	Blue	465	470	475	3.5	3.9	Class II	See Fig. 3
C470-UB291-E1000	3.4	5.0	Blue	465	470	475	3.5	3.9	Class II	See Fig. 2
C490-UB290-E1000	3.3	4.8	Aqua Blue	485	490	495	3.5	3.9	Class II	See Fig. 3
C505-UB290-E1000	2.5	3.5	Traffic Green	500	505	510	3.5	3.9	Class II	See Fig. 3
C525-UB290-E1000	1.7	3.0	Green	520	525	535	3.5	3.9	Class II	See Fig. 3

All measurements taken at 20mA.

#### MEGABRIGHT™ InGaN LEDs

	Brightness (mW)		Color	Dominant Wavelength (nm)			Forward Voltage		ESD Rating	Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max		
C460-MB290-E1000	8.0	11.0	Deep Blue	455	460	465	3.7	4.0	Class II	See Fig. 3
C470-MB290-E1000	7.5	10.0	Blue	465	470	475	3.7	4.0	Class II	See Fig. 3
C503-MB290-E1000	6.0	8.0	Traffic Green	498	503	508	3.8	4.0	Class II	See Fig. 3
C505-MB290-E1000	6.0	8.0	Traffic Green	500	505	510	3.8	4.0	Class II	See Fig. 3
C527-MB290-E1000	5.0	7.0	Green	520	525	535	3.8	4.0	Class II	See Fig. 3

All measurements taken at 20mA.



**MEGABRIGHT™ UltraViolet InGaN LEDs**

	Brightness (mW)		Color	Peak Wavelength (nm)			Forward Voltage		ESD Rating	Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max		
C395-MB290-E400	9.0	11.0	UV	390	395	400	3.7	4.0	Class I	See Fig. 3
C400-MB290-E400	10.0	12.0	UV	390	400	410	3.7	4.0	Class I	See Fig. 3
C405-MB290-E400	10.0	12.0	UV	400	405	410	3.7	4.0	Class I	See Fig. 3

All measurements taken at 20mA.

**XBRIGHT™ InGaN LEDs**

	Brightness (mW)		Color	Dominant Wavelength (nm)			Forward Voltage		ESD Rating	Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max		
C460-XB290-E1000-A C460-XB290-E1000-B	11.0	15.0	Deep Blue	455	460	465	3.7	4.0	Class II	See Fig. 4
C470-XB290-E1000-A C470-XB290-E1000-B	11.0	14.0	Blue	465	470	475	3.7	4.0	Class II	See Fig. 4
C505-XB290-E1000-A C505-XB290-E1000-B	8.5	11.0	Traffic Green	500	505	510	3.8	4.0	Class II	See Fig. 4
C527-XB290-E1000-A C527-XB290-E1000-B	7.0	9.0	Green	520	527	535	3.8	4.0	Class II	See Fig. 4

All measurements taken at 20mA. “-A” XB LEDs feature Au/Sn backside metalization. “-B” XB LEDs feature Au backside metalization.

**XBRIGHT™ UltraViolet InGaN LEDs**

	Brightness (mW)		Color	Peak Wavelength (nm)			Forward Voltage		ESD Rating	Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max		
C395-XB290-E400-A C395-XB290-E400-B	13.0	16.0	UV	390	395	400	3.7	4.0	Class I	See Fig. 4
C405-XB290-E400-A C405-XB290-E400-B	14.0	17.0	UV	400	405	410	3.7	4.0	Class I	See Fig. 4

All measurements taken at 20mA. “-A” XB LEDs feature Au/Sn backside metalization. “-B” XB LEDs feature Au backside metalization.

### XBRIGHT™ 900 Power Chip™ LEDs

	Brightness (mW)		Color	Dominant Wavelength (nm)			Forward Voltage		Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max	
C470-XB900-A C470-XB900-B	TBD	150	Blue	465	470	475	3.7	4.0	See Fig. 5

All measurements taken at 350mA. “-A” XB LEDs feature Au/Sn backside metalization. “-B” XB LEDs feature Au backside metalization.

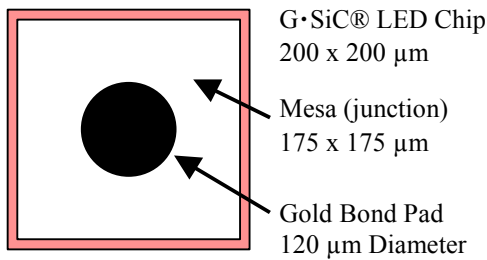
### XBRIGHT™ 900 UltraViolet Power Chip™ LEDs

	Brightness (mW)		Color	Peak Wavelength (nm)			Forward Voltage		Dimensions
	Min	Typ		Min	Typ	Max	Typ	Max	
C405-XB900-A C405-XB900-B	TBD	250	UV	400	405	410	3.7	4.0	See Fig. 5

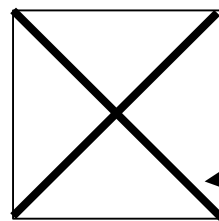
All measurements taken at 350mA. “-A” XB LEDs feature Au/Sn backside metalization. “-B” XB LEDs feature Au backside metalization.

Fig. 1

#### Topside View – CB230



#### Bottom View



Anode (+)  
h = 250  $\mu\text{m}$

Backside  
Metallization  
Cathode (-)

#### Die Cross Section

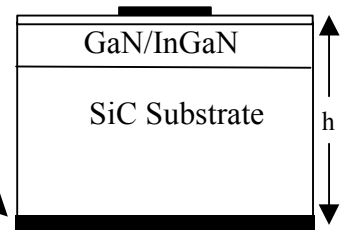
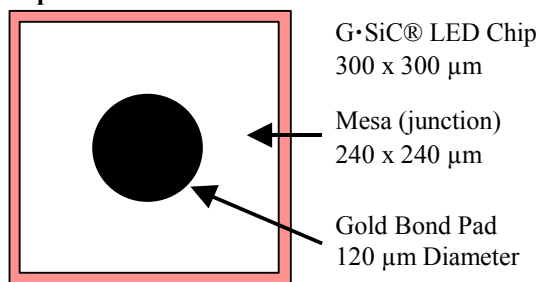
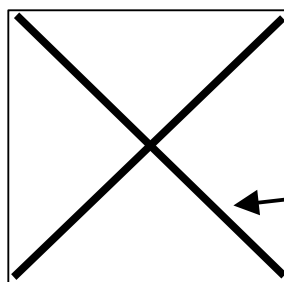


Fig. 2

#### Topside View – CB290 and UB291



#### Bottom View



Anode (+)  
h = 250  $\mu\text{m}$

Backside  
Metallization  
Cathode (-)

#### Die Cross Section

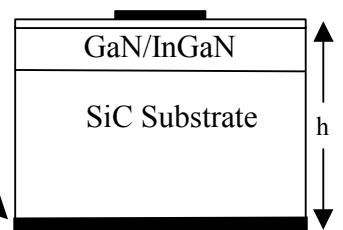


Fig. 3

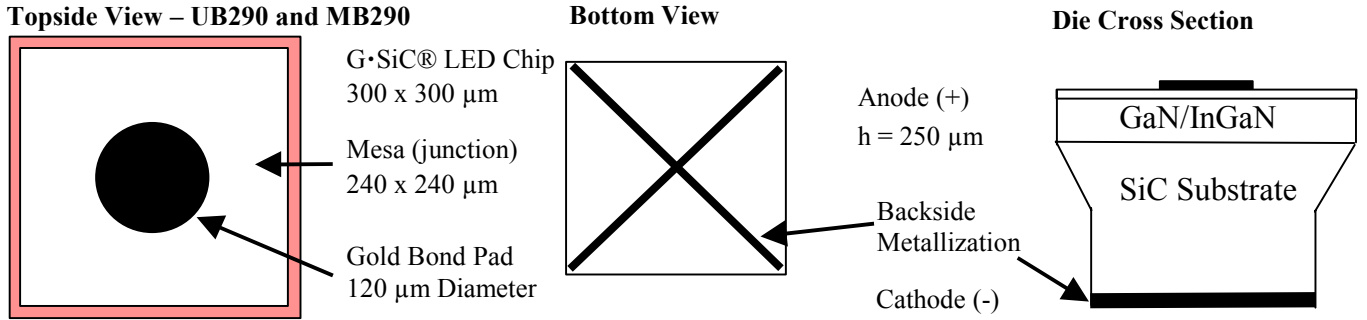


Fig. 4

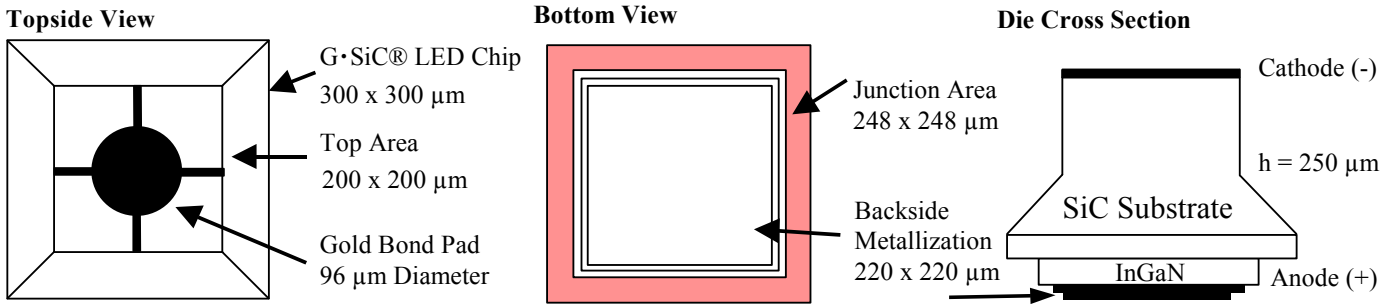


Fig. 5

