



BP321608-CTC3

SMD Type Blue Emitter

Features

- Top view 1206 package
- Viewing Angle = $\pm 70^\circ$
- Compatible with infrared and vapor phase reflow solder process
- High reliability
- Ultra bright Blue
- RoHS compliance

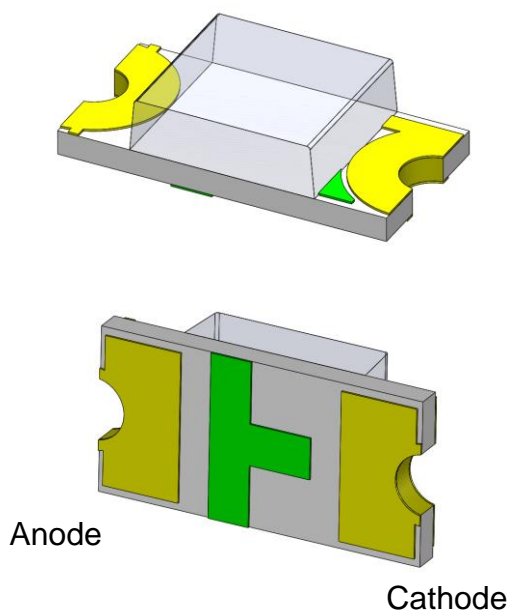
Applications

- Optical indicator.
- Switch and Symbol Display.

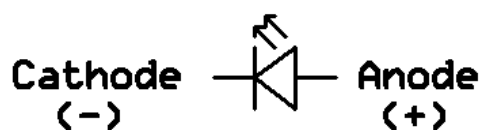
Description

The BP321608-CTC3 is an InGaN Blue LED housed in a miniature SMD package. The device has a dominant wavelength of 465nm LED.

Package Outline



Schematic





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Absolute Maximum Rating at 25°C

Symbol	Parameters	Ratings	Units	Notes
I _F	Continuous Forward Current	25	mA	
I _{FP}	Peak Forward Current	60	mA	1
V _R	Reverse Voltage	5	V	
T _{opr}	Operating Temperature	-40 ~ +85	°C	
T _{stg}	Storage Temperature	-40 ~ +100	°C	
T _{sol}	Soldering Temperature	260	°C	2
P _D	Power Dissipation at(or below) 25°C Free Air Temperature	95	mW	

Electro-Optical Characteristics *TA = 25°C (unless otherwise specified)*

Optical Characteristics

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
I _v	Luminous Intensity	I _F =5mA	30	-	89	mcd	3
λ _d	Dominant Wavelength	I _F =5mA	460.0	-	472.5	nm	4
θ _{1/2}	Angle of Half Intensity	I _F =5mA	-	±70	-	deg	

Electrical Characteristics

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
V _F	Forward Voltage	I _F =5mA	2.6	-	3.1	V	5
I _R	Reverse Current	V _R =5V	-	-	1	μA	

Notes:

1. I_{FP} Conditions--Pulse Width ≤ 100μs and Duty ≤ 10%.
2. Soldering time ≤ 10 seconds.
3. Bin Range of Luminous Intensity

Bin Code	Min	Max	Unit	Condition
k	30	43	mcd	I _F =5mA
l	43	62		
m	62	89		

Tolerance of: Luminous Intensity ±10%



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4. Bin Range of Dominant Wavelength

Bin Code	Min	Max	Unit	Condition
B5	460.0	462.5	nm	$I_F=5\text{mA}$
B6	462.5	465.0		
B7	465.0	467.5		
B8	467.5	470.0		
B9	470.0	472.5		

Tolerance of Dominant Wavelength: $\pm 1\text{nm}$.

5. Bin Range of Forward Voltage

Bin Code	Min	Max	Unit	Condition
33	2.6	2.7	V	$I_F=5\text{mA}$
34	2.7	2.8		
35	2.8	2.9		
36	2.9	3.0		
37	3.0	3.1		

Tolerance of Forward Voltage $\pm 0.05\text{V}$.



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Typical Characteristic Curves

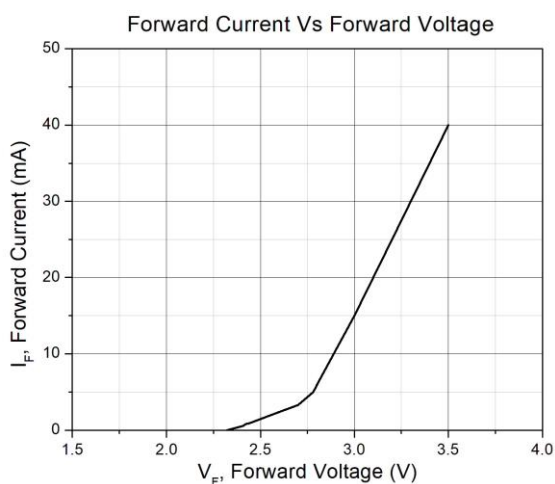


Figure 1

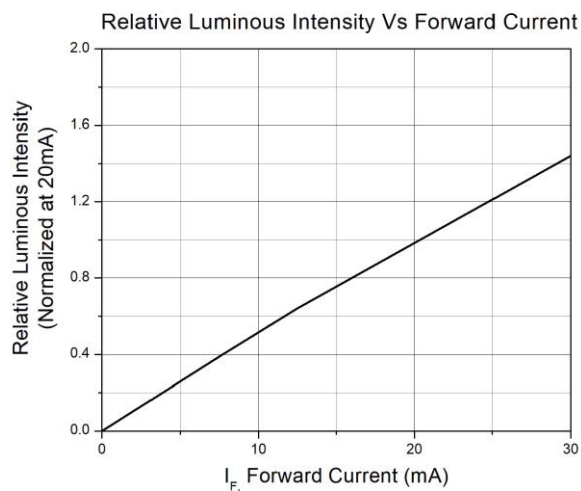


Figure 2

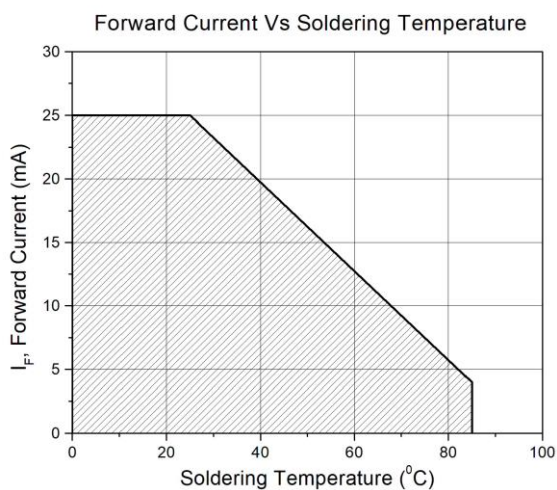


Figure 3

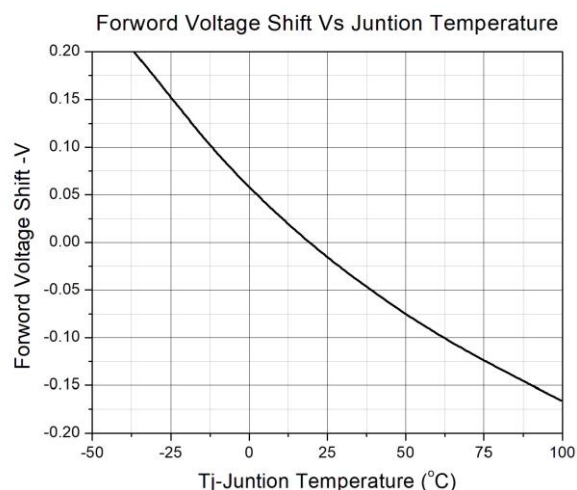


Figure 4

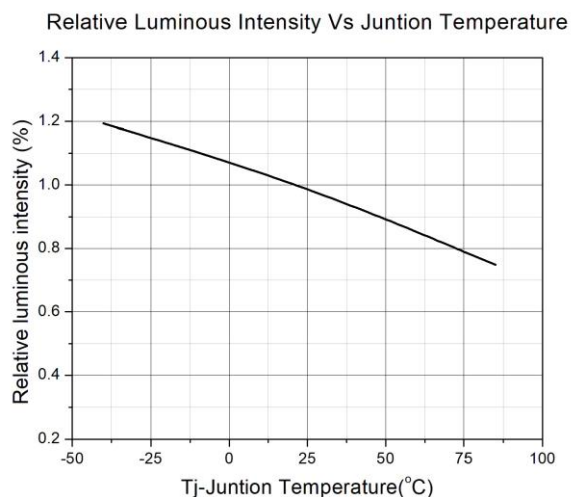


Figure 5

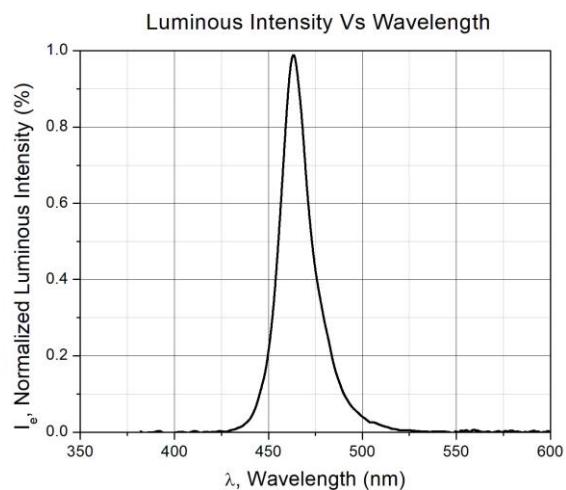


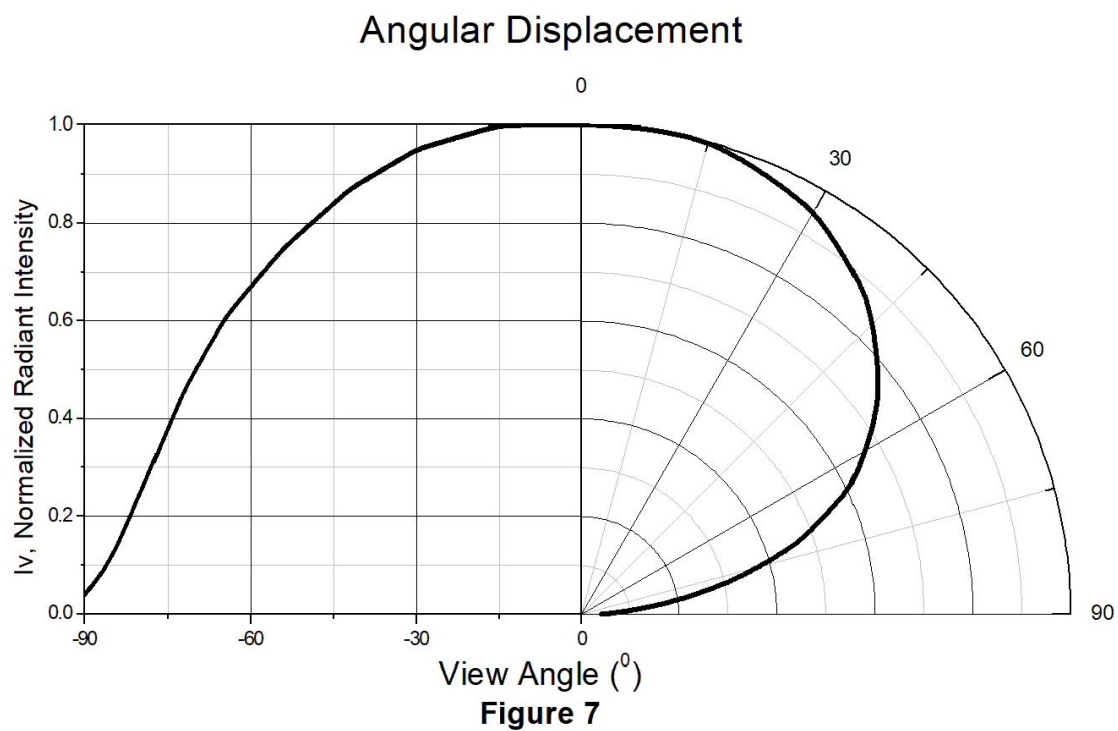
Figure 6



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SMD Type Blue Emitter

Typical Characteristic Curves

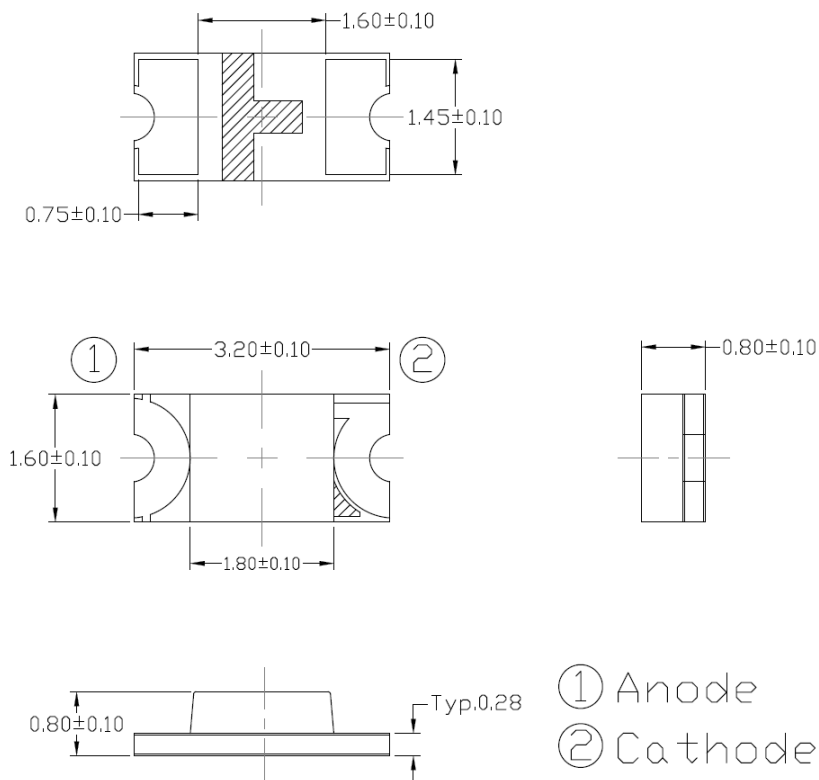




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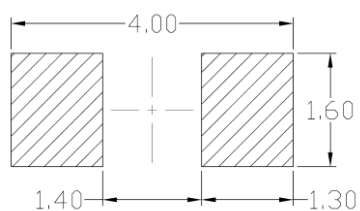
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Package Dimension *All dimensions are in mm, unless otherwise stated*



Note: Tolerance unless mentioned is ± 0.1 mm.

Recommended Soldering Mask *All dimensions are in mm, unless otherwise stated*



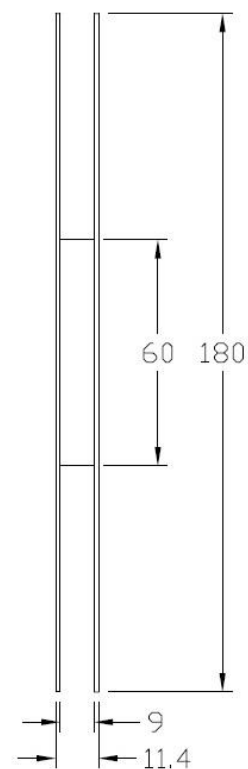
Note: Tolerance unless mentioned is ± 0.1 mm.

Ordering Information

Part Number	Description	Quantity
BP321608-CTC3	Tape & Reel	3000 pcs



A schematic diagram of a circular microfluidic device. The device consists of a large outer circle. Inside this circle, there is a central circular region. Within the central region, there is a four-armed star-like structure with a small circle at its center. Surrounding the central region are four teardrop-shaped chambers arranged in a square pattern. Above the central region, there is a rectangular box containing the word "Label".



Technical drawing of a 12-pin D-sub connector. The drawing includes a top view showing pin locations with dimensions: 4.00, 2.00, 1.75, 3.45, 8.00, 4.00, 1.50, and 1.00. It also shows a side view with dimensions 0.23 and 1.00. A polarity symbol is shown on the left, and an 'Input Direction' arrow is at the top.

Rev 3
Jan, 2021



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Label Form Specification

CT Micro
International Corporation

MSL-X
MADE IN CHINA

CPN: XXXXXXXXXXXXXXXXX
|||||

Part no: XXXXXXXXXXXXXXXX
|||||

Serial no: XXXXXXXX
|||||

Lot no: XXXXXXXX
|||||

Qty: XXXXXX Date Code: YWWJ
||||| |||||

IV: XX WD:XX VF:XX
||||| ||||| |||||

QR Code

Pb
RoHS

CPN : Customer Part Number
Part no: CTM Production Number
Serial no: Production Number
Lot no: Lot number
Q'ty: Packing Quantity
Date Code: Manufacture Date
IV : Bin Code of Luminous Intensity
WD : Bin Code of Dominant Wavelength
VF : Bin Code of Forward Voltage
MADE IN CHINA: Production Place

Storage Condition

1. Do not open moisture proof bag before the products are ready to use.
2. The moisture barrier bag should be stored at 30°C and 90%R.H. max. before opening.
Shelf life of non-opened bag is 12 months after the bag sealing date.
3. After opening the moisture barrier bag floor life is 1 year at 30°C/60%RH. max. Unused LEDs should be resealed into moisture barrier bag. (Refer to J-STD-020 Standard)
4. If the moisture absorbent material has faded away or the LEDs have exceeded the storage time, baking treatment should be performed using the J-STD-033 Standard conditions.



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Reflow Profile



Profile Feature	Pb-Free Assembly Profile
Temperature Min. (Tsmin)	150°C
Temperature Max. (Tsmax)	200°C
Time (ts) from (Tsmin to Tsmax)	60-120 seconds
Ramp-up Rate (t _L to t _P)	3°C/second max.
Liquidous Temperature (T _L)	217°C
Time (t _L) Maintained Above (T _L)	60 – 150 seconds
Peak Body Package Temperature	260°C +0°C / -5°C
Time (t _P) within 5°C of 260°C	30 seconds
Ramp-down Rate (T _P to T _L)	6°C/second max
Time 25°C to Peak Temperature	8 minutes max.



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- 2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.*