



# BP1608X09-G0

## SMD Type Blue Emitter

### Features

- Small double-end package
- Viewing Angle =  $\pm 30^\circ$
- High reliability
- Ultra bright Blue
- RoHS compliance

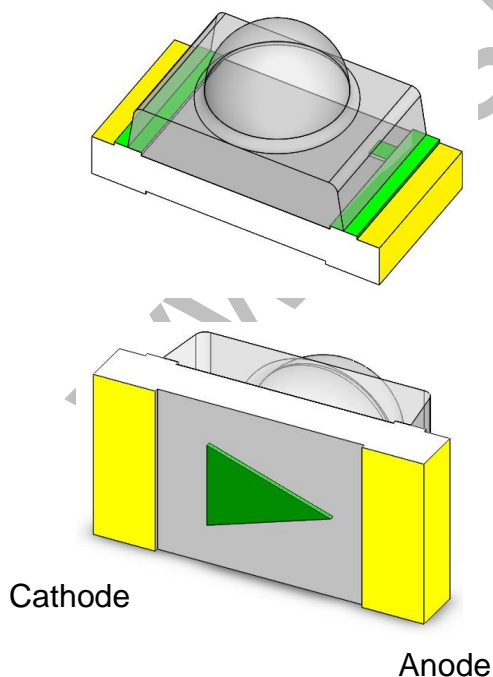
### Applications

- LED sensor
- Indicator light
- General use

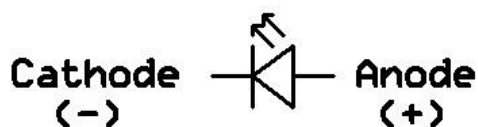
### Description

The BP1608X09-G0 is an InGaN Blue LED housed in a miniature SMD package. The device has a peak wavelength of 452nm LED.

### Package Outline



### Schematic





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### Absolute Maximum Rating at 25°C

Symbol	Parameters	Ratings	Units	Notes
I <sub>F</sub>	Continuous Forward Current	30	mA	
V <sub>R</sub>	Reverse Voltage	5	V	
T <sub>opr</sub>	Operating Temperature	-40 ~ +85	°C	
T <sub>stg</sub>	Storage Temperature	-40 ~ +100	°C	
T <sub>sol</sub>	Soldering Temperature	260	°C	1
P <sub>D</sub>	Power Dissipation at(or below) 25°C Free Air Temperature	114	mW	

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

#### Optical Characteristics

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
I <sub>v</sub>	Luminous Intensity	I <sub>F</sub> =5mA	110	165	-	mcd	2
		I <sub>F</sub> =20mA	-	590	-		
I <sub>e</sub>	Radiant Intensity	I <sub>F</sub> =5mA	-	4.5	-	mW/sr	
λ <sub>p</sub>	Peak Wavelength	I <sub>F</sub> =5mA	-	452	-	nm	
λ <sub>d</sub>	Dominant Wavelength	I <sub>F</sub> =5mA	-	457	-	nm	
Δλ	Spectral Bandwidth	I <sub>F</sub> =5mA	-	17	-	nm	
θ <sub>1/2</sub>	Angle of Half Intensity	I <sub>F</sub> =5mA	-	±30	-	deg	

#### Electrical Characteristics

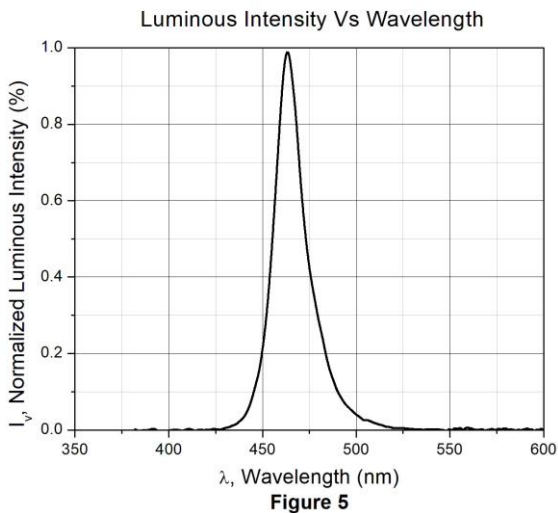
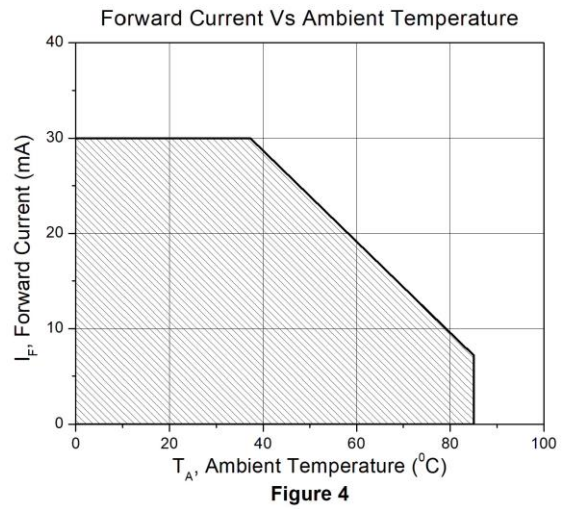
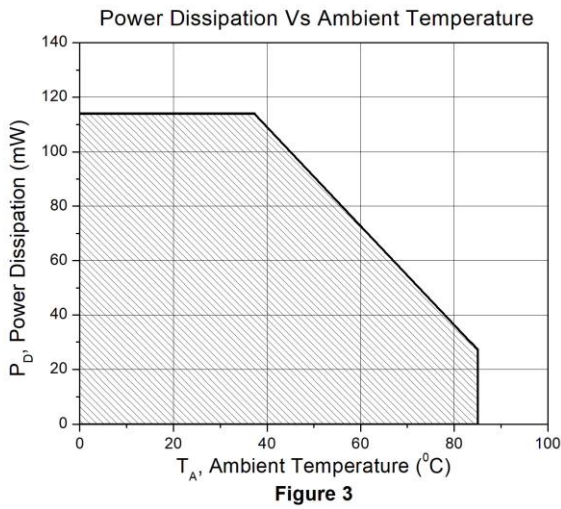
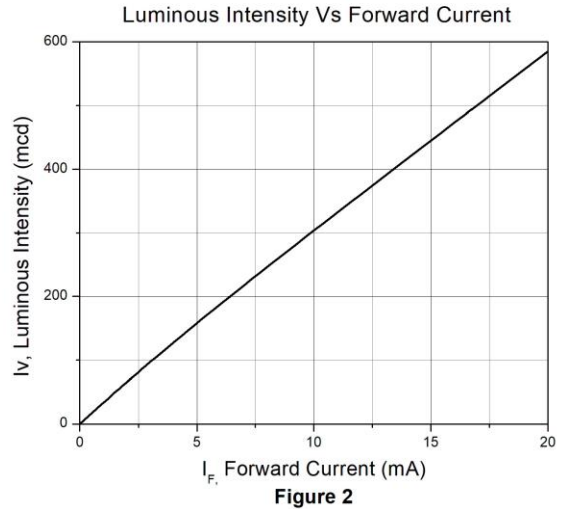
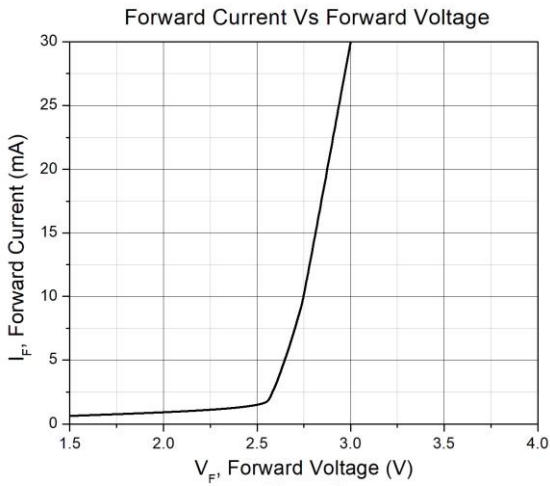
Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
V <sub>F</sub>	Blue LED Forward Voltage	I <sub>F</sub> =5mA	2.4	2.65	3.2	V	
		I <sub>F</sub> =30mA	2.6	-	3.8	V	

#### Notes:

1. Soldering time ≤ 5 seconds.
2. Tolerance of Luminous Intensity: ±10%.

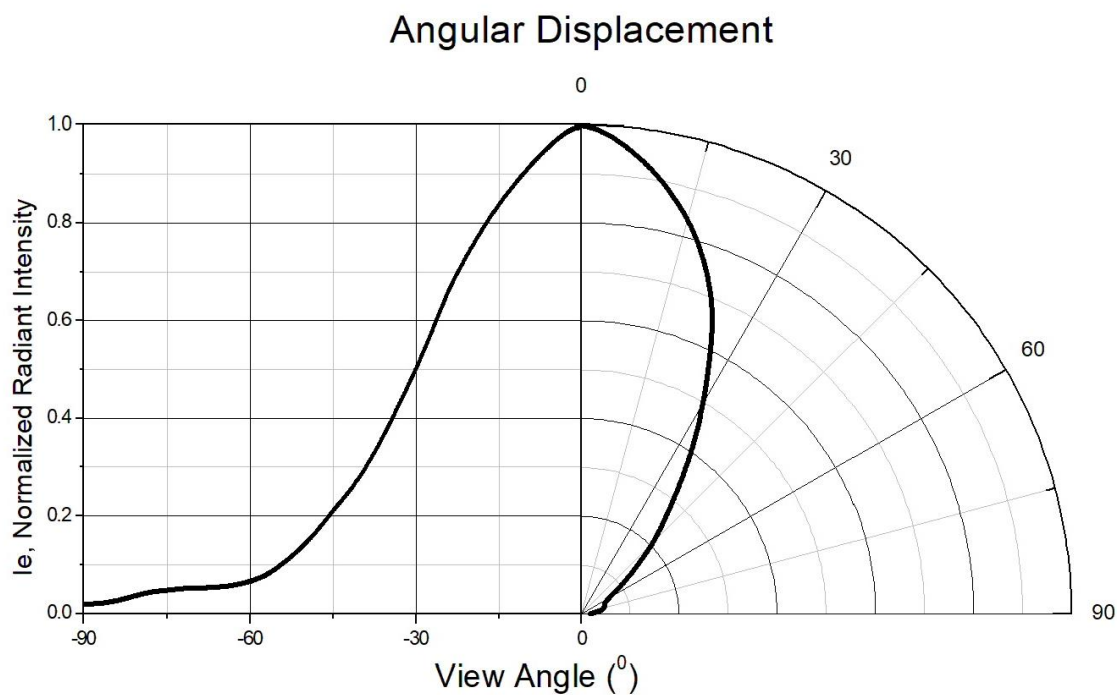


## Typical Characteristic Curves





**Typical Characteristic Curves**

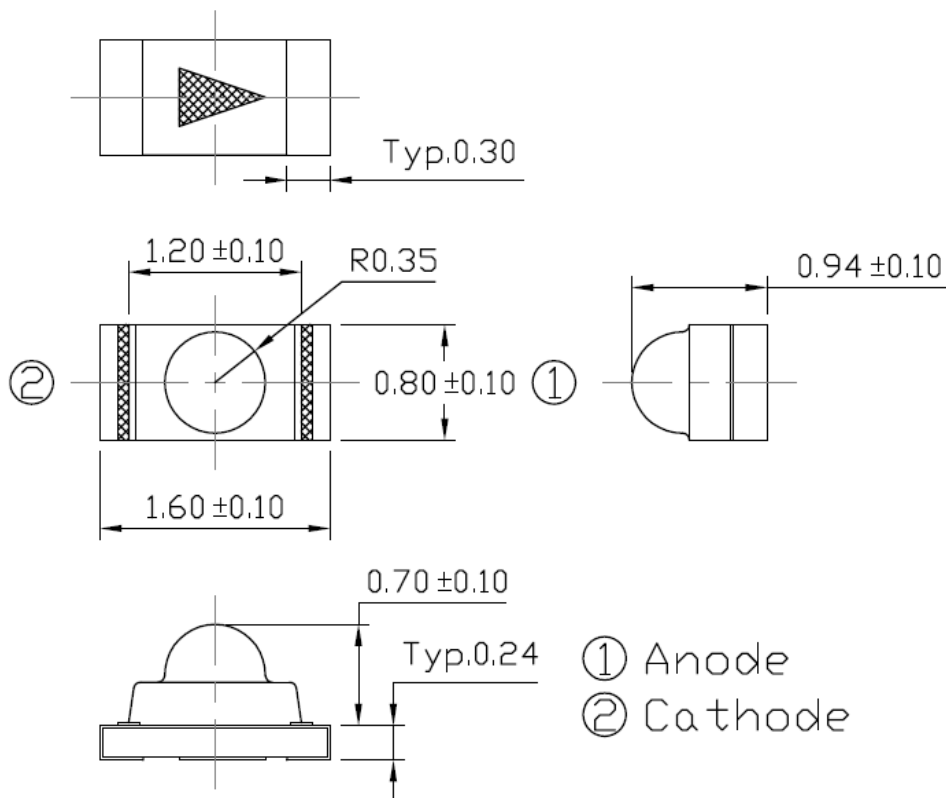




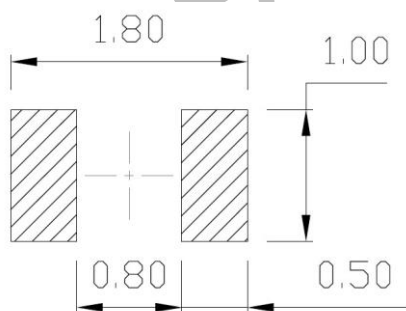
# BP1608X09-G0

## SMD Type Blue Emitter

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



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



### Ordering Information

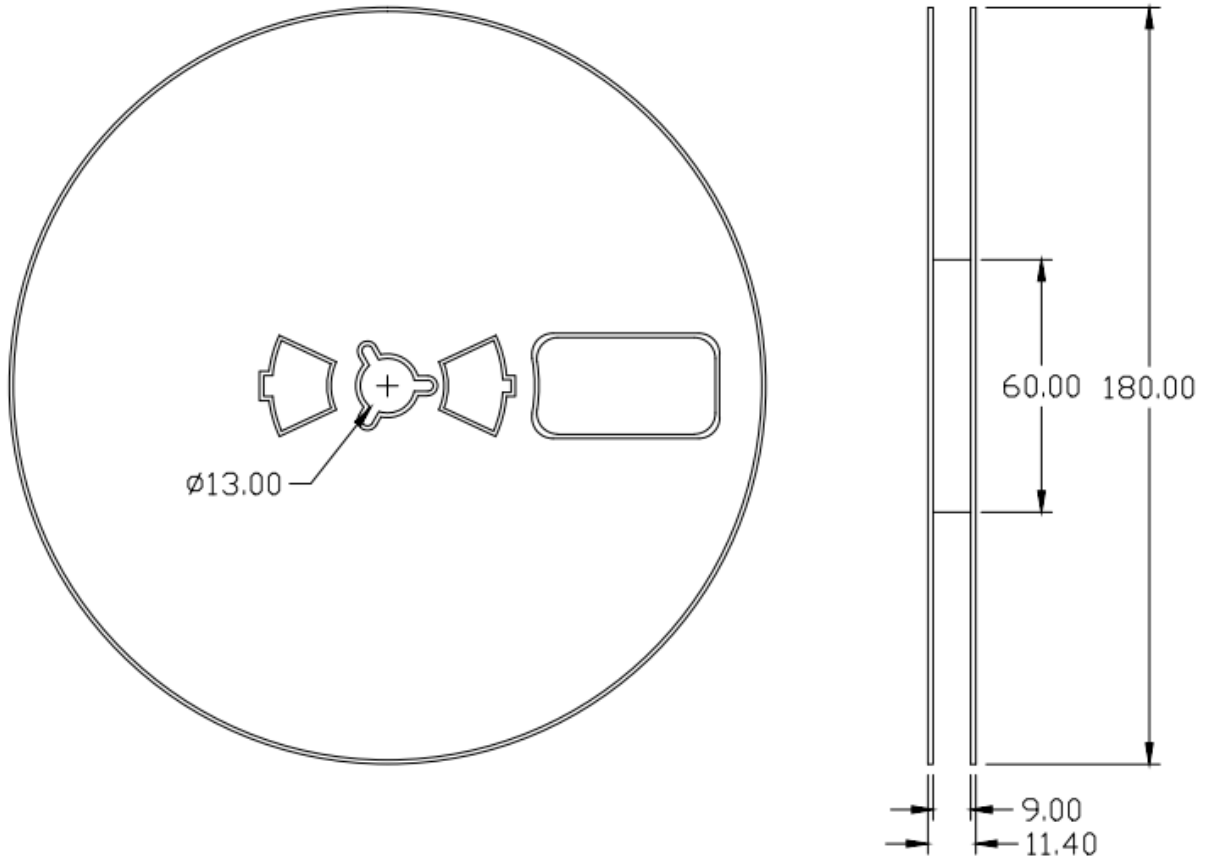
Part Number	Description	Quantity
BP1608X09-G0	Tape & Reel	4000 pcs



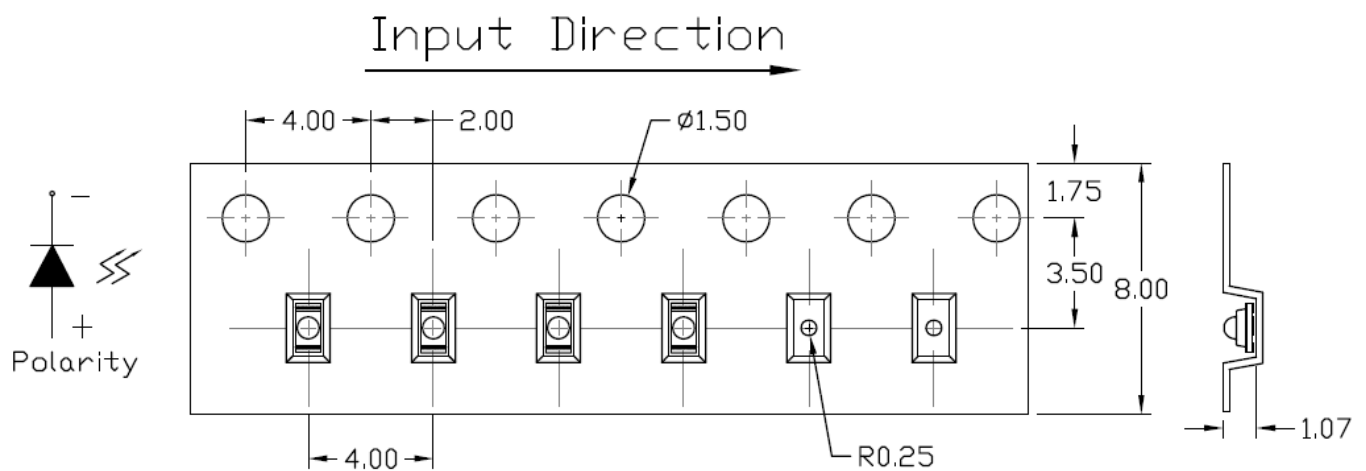
# BP1608X09-G0

## SMD Type Blue Emitter

### Reel Dimension All dimensions are in mm, unless otherwise stated

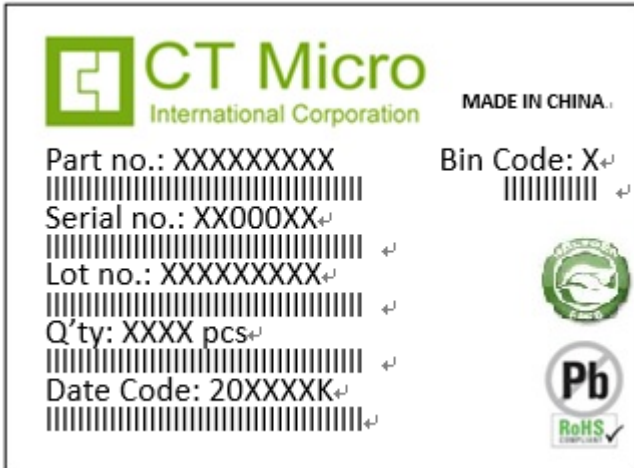


### Tape Dimension All dimensions are in mm, unless otherwise stated





### Label Form Specification



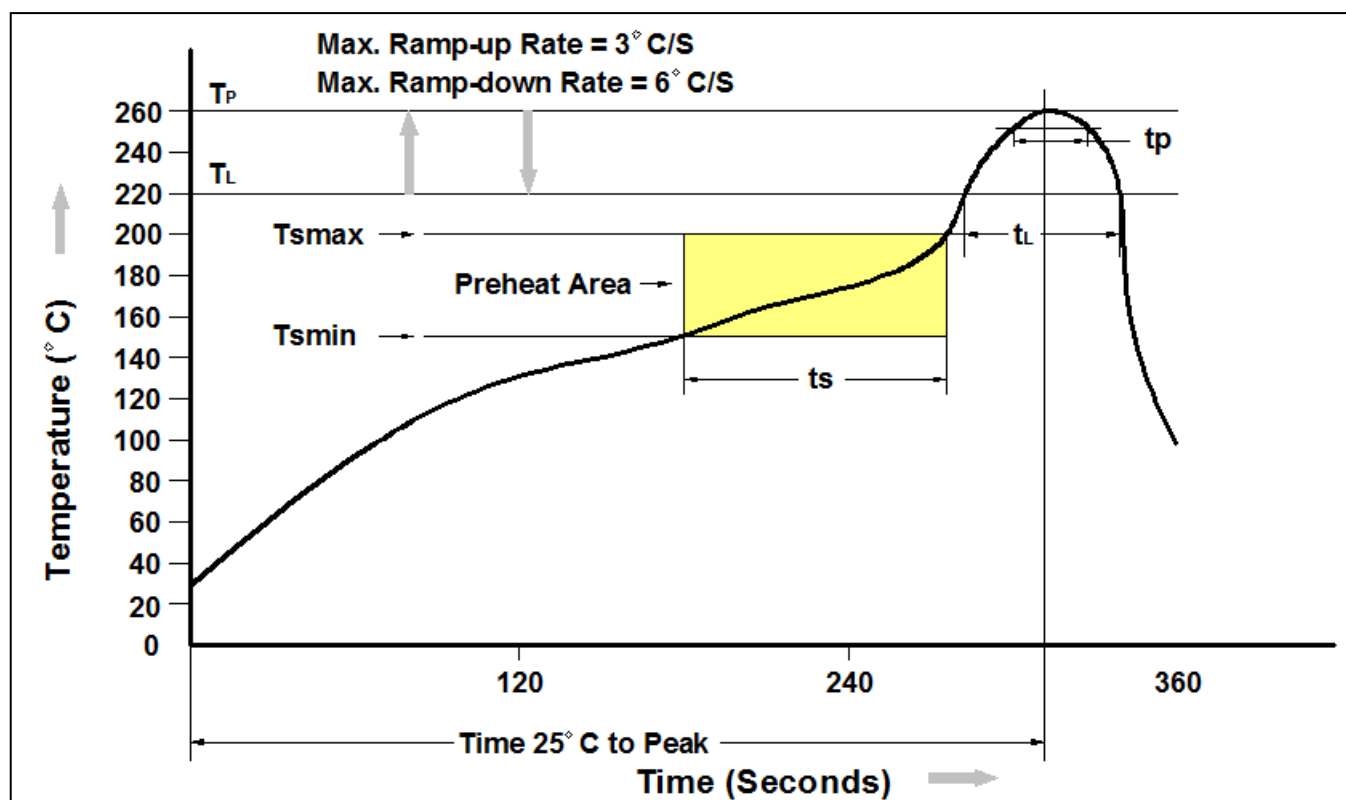
Part no: CTM Production Number  
Serial no: Production Number  
Lot no: Lot number  
Q'ty: Packing Quantity  
Date Code: Manufacture Date  
Bin Code: Iv Ranks  
MADE IN CHINA: Production Place

### 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 168h 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.



Reflow Profile



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





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