



GP201208-ATC3

SMD Type Green Emitter

Features

- Top view 0805 package
- Viewing Angle = $\pm 70^\circ$
- Compatible with infrared and vapor phase reflow solder process
- High reliability
- Ultra bright Green
- RoHS compliance

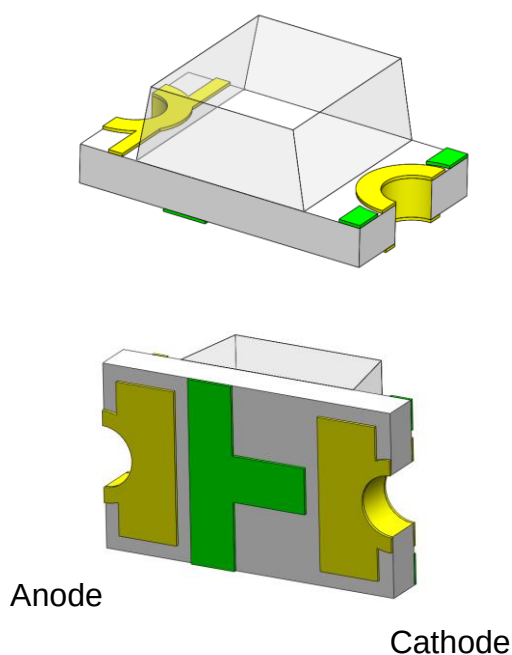
Applications

- Optical indicator.
- Switch and Symbol Display.

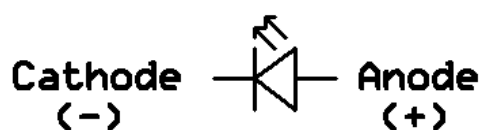
Description

The GP201208-ATC3 is an AlGaInP Green LED housed in a miniature SMD package. The device has a dominant wavelength of 525 nm LED.

Package Outline



Schematic





GP201208-ATC3

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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	100	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	100	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 =20mA	360	-	900	mcd	3
λ _d	Dominant Wavelength	I _F =20mA	515	-	530	nm	4
θ _{1/2}	Angle of Half Intensity	I _F =20mA	-	±70	-	deg	

Electrical Characteristics

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
V _F	Forward Voltage	I _F =20mA	2.75	-	3.65	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
T2	360	450	mcd	I _F =20mA
U1	450	565		
U2	565	715		
V1	715	900		

Tolerance of: Luminous Intensity ±10%



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4. Bin Range of Dominant Wavelength

Bin Code	Min	Max	Unit	Condition
A4	515	520	nm	$I_F=20\text{mA}$
A5	520	525		
A6	525	530		

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

5. Bin Range of Forward Voltage

Bin Code	Min	Max	Unit	Condition
5	2.75	3.05	V	$I_F=20\text{mA}$
6	3.05	3.35		
7	3.35	3.65		

Tolerance of Forward Voltage $\pm 0.1\text{V}$.



Typical Characteristic Curves

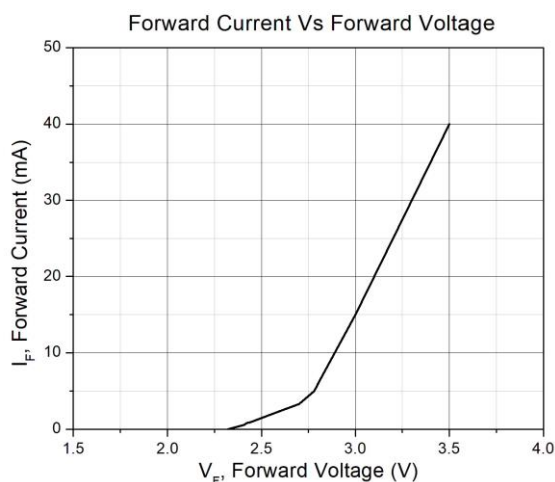


Figure 1

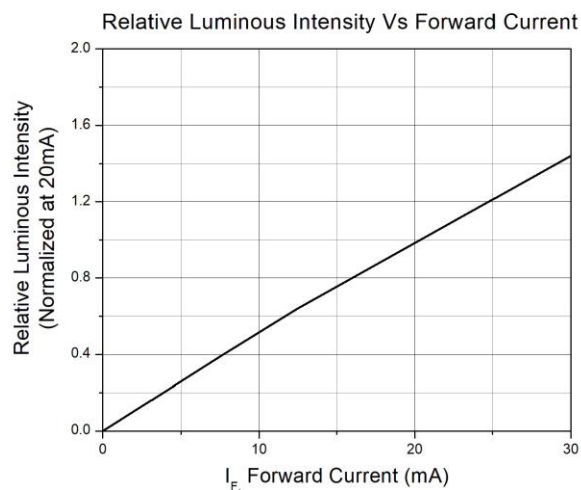


Figure 2

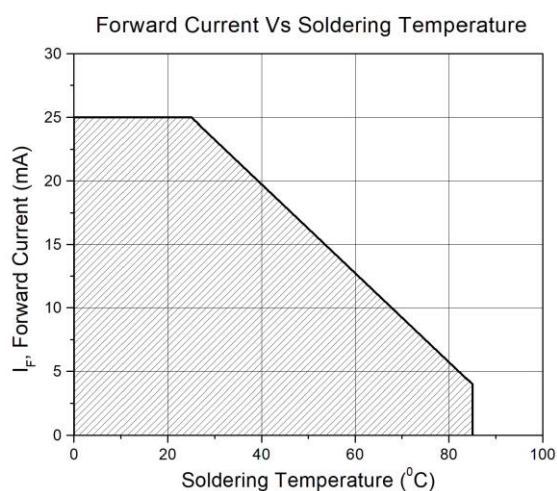


Figure 3

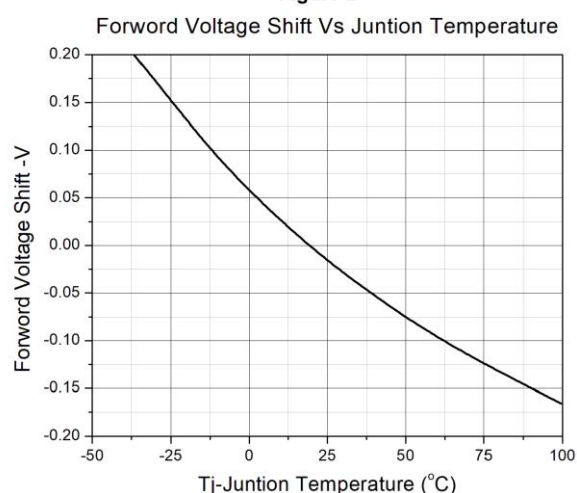


Figure 4

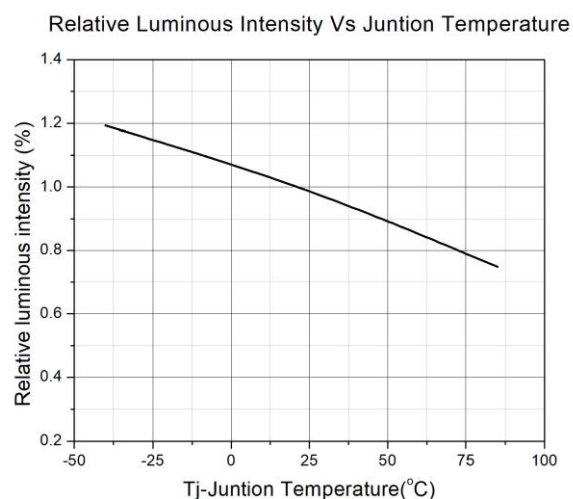


Figure 5

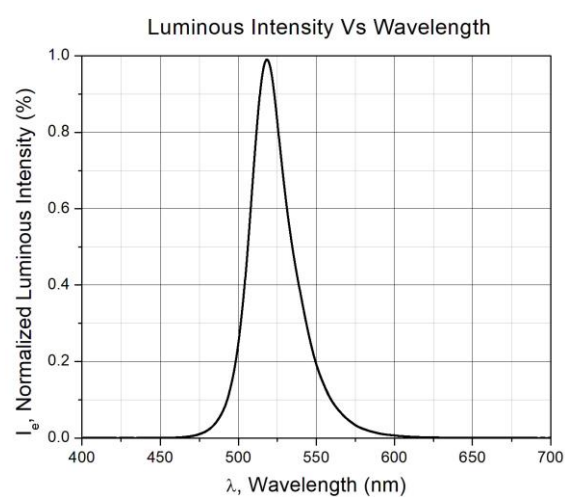
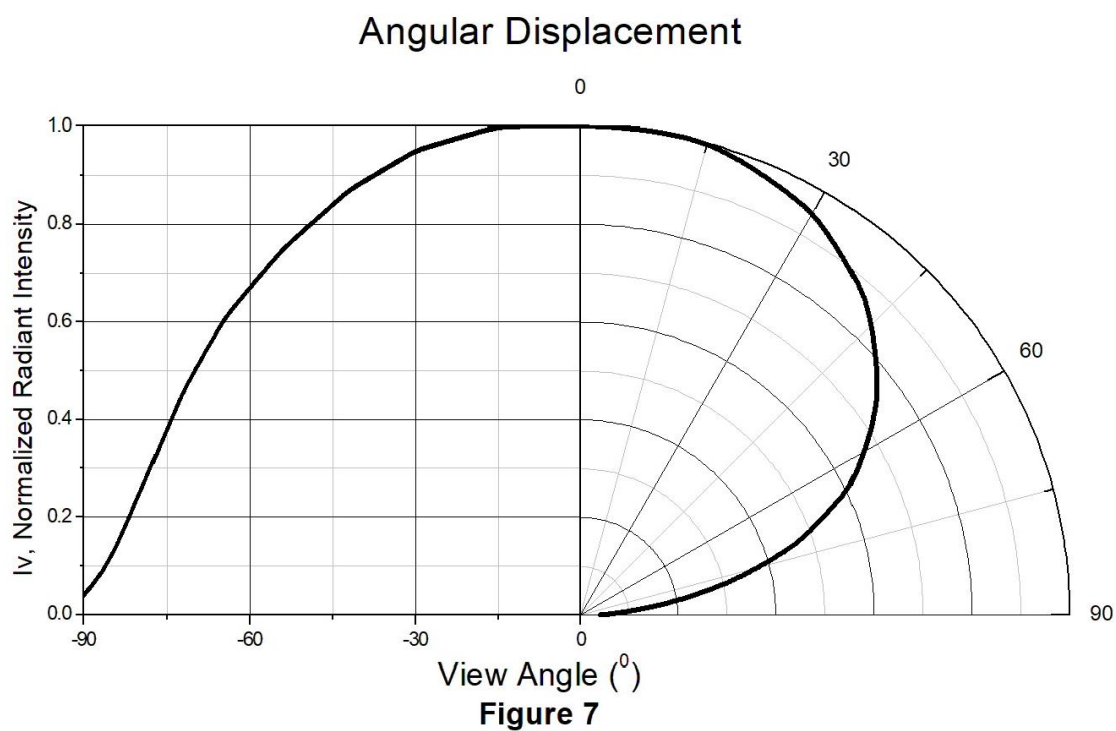


Figure 6

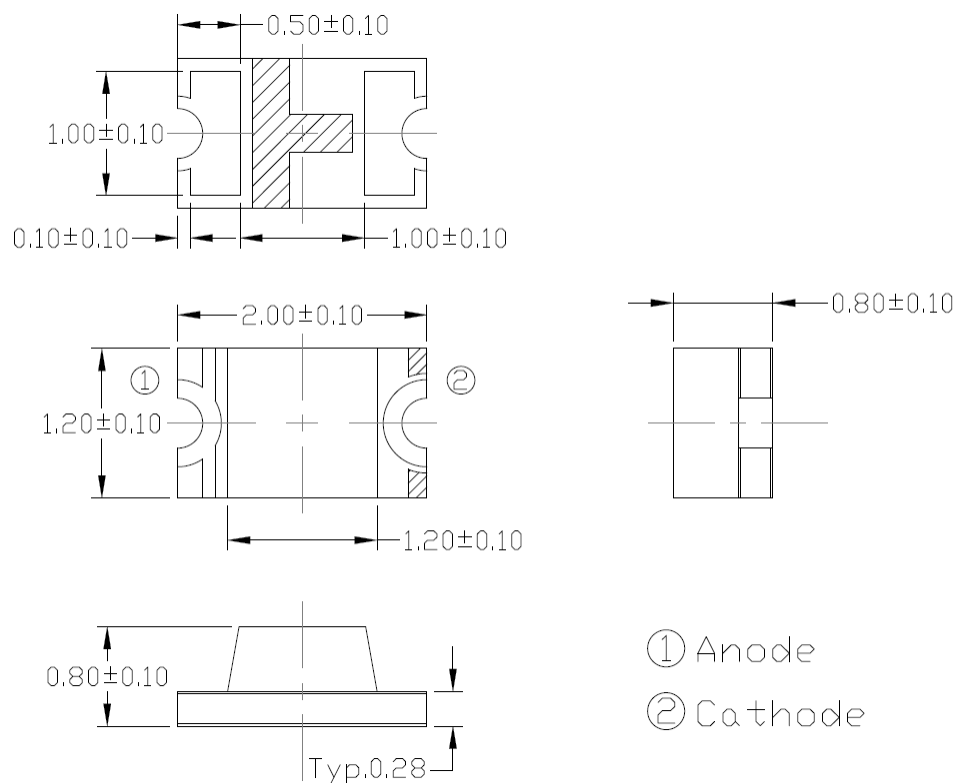


Typical Characteristic Curves



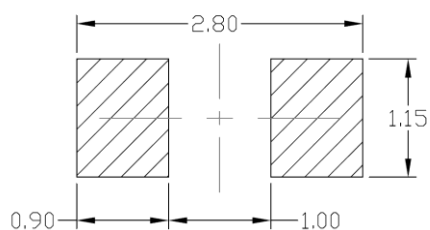
SMD Type Green Emitter

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



Note: Tolerance unless mentioned is $\pm 0.1\text{mm}$.

Recommended Soldering Mask



Note: Tolerance unless mentioned is $\pm 0.1\text{mm}$.

Ordering Information

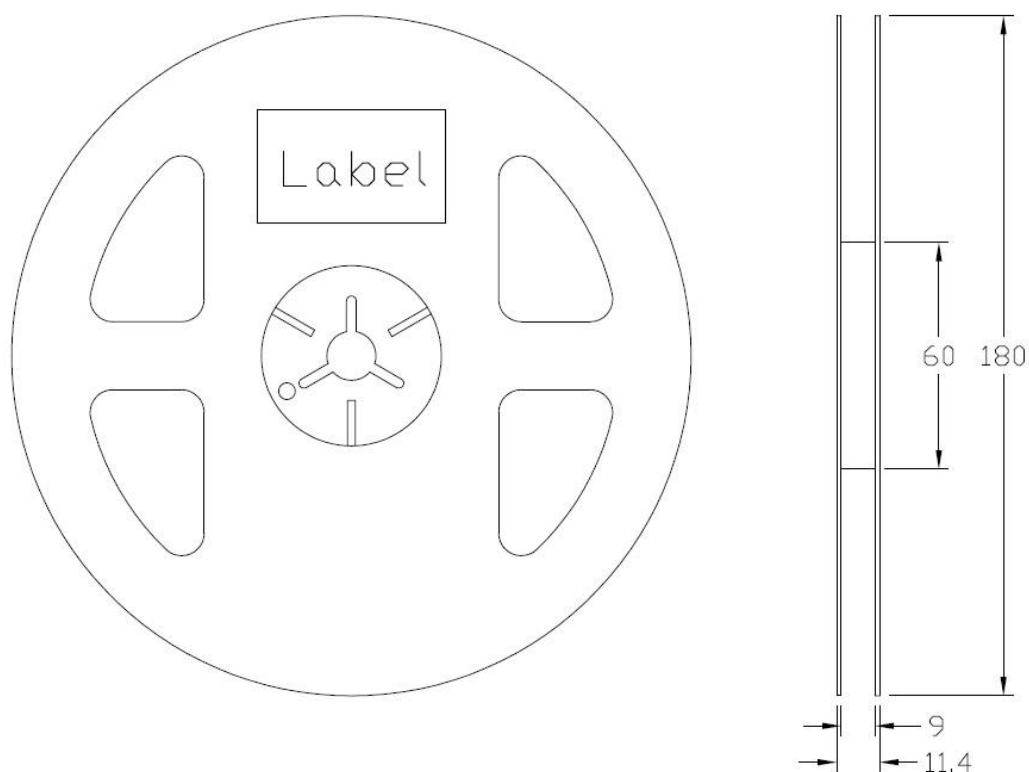
<i>Part Number</i>	<i>Description</i>	<i>Quantity</i>
GP201208-ATC3	Tape & Reel	3000 pcs



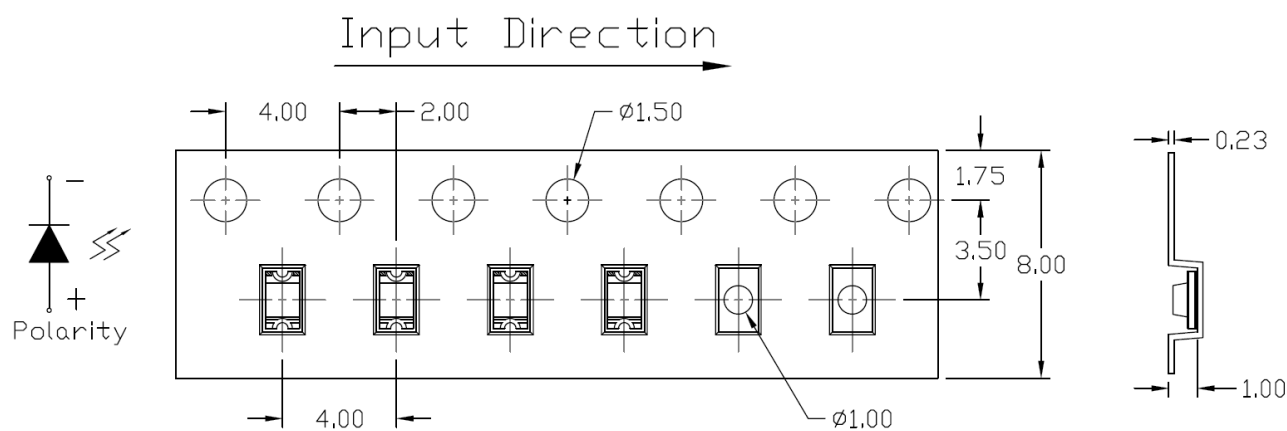
GP201208-ATC3

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



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



Note: Tolerance unless mentioned is $\pm 0.1\text{mm}$.



Label Form Specification

CT Micro
International Corporation

MSL-X
MADE IN CHINA

CPN: XXXXXXXXXXXXXXXXXX
|||||

Part no: XXXXXXXXXXXXXXXX
|||||

Serial no: XXXXXXXX
|||||

Lot no: XXXXXXXX
|||||

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

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

QR Code

Pb
RoHS

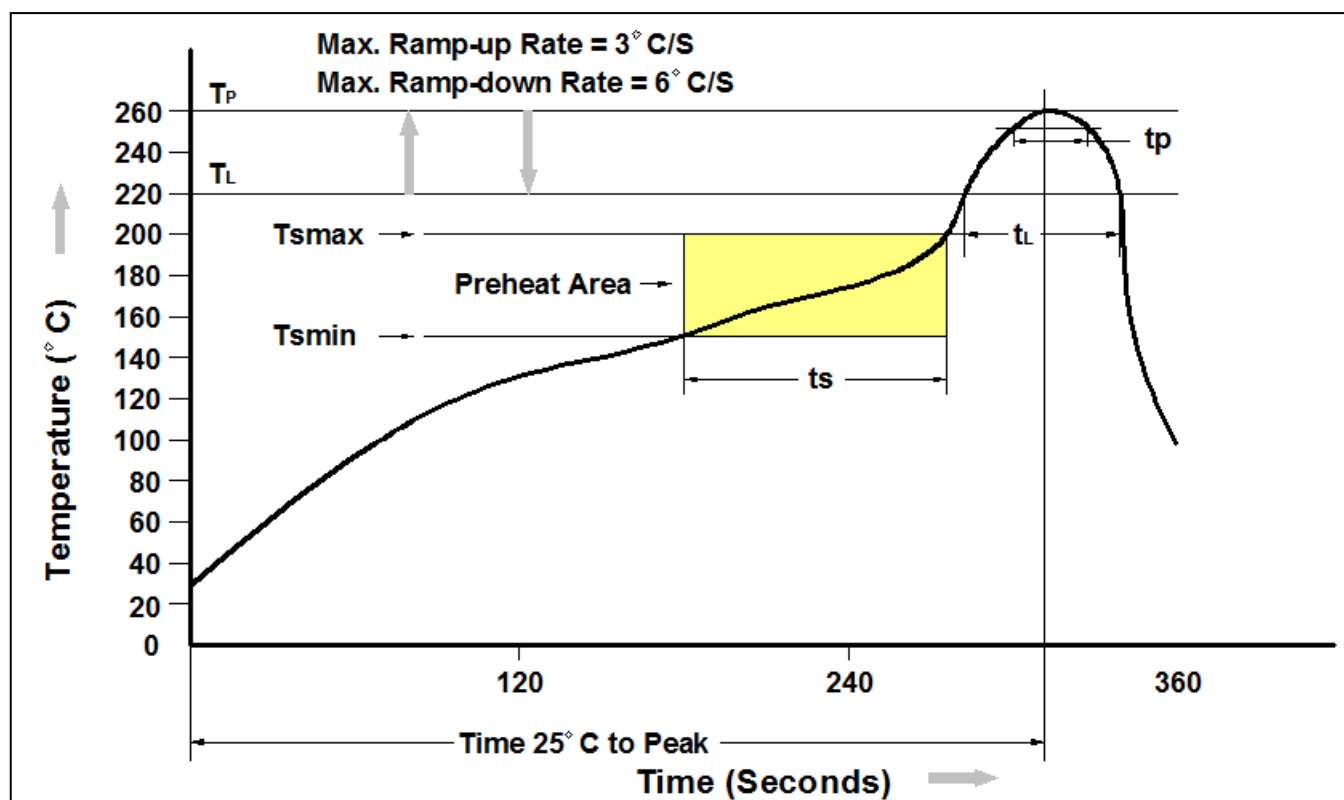
CPN : Customer Part Number
Part no: CTM Production Number
Serial no: Production Number
Lot no: Lot number
Q'ty: Packing Quantity
Date Code: Manufacture Date
IV : Bin Code of Luminous Intensity
WD : Bin Code of Dominant Wavelength
VF : Bin Code of Forward Voltage
MADE IN CHINA: Production Place

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.



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 (tL to tP)	3°C/second max.
Liquidous Temperature (TL)	217°C
Time (tL) Maintained Above (TL)	60 – 150 seconds
Peak Body Package Temperature	260°C +0°C / -5°C
Time (tP) within 5°C of 260°C	30 seconds
Ramp-down Rate (TP to TL)	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.*