



GBRC352819-ATC2

Multi-Wavelength SMD Type

Features

- Top view 3528 package
- Wide viewing angle
- GBR individual control
- High reliability
- RoHS compliance

Applications

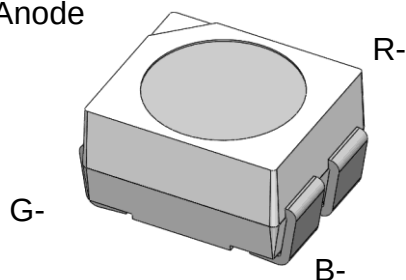
- General lighting
- Indoor signage display applications
- Switch light
- Decorative and Entertainment lighting

Description

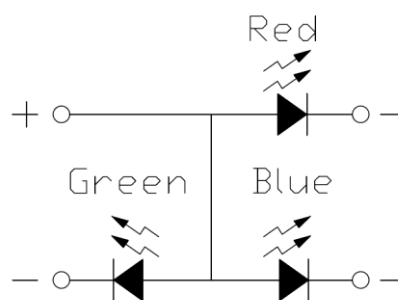
The GBRC352819-ATC2 is a high brightness device designed for demanding applications in efficiency and reduced space. An ideal device in emphasizing visual effects, advertisement, decoration as well as general backlighting needs.

Package Outline

Common
Anode



Schematic



**Absolute Maximum Rating at 25°C**

Symbol	Parameters		Ratings	Units	Notes
I _F	Continuous Forward Current	G	25	mA	
		B	25		
		R	25		
I _{FP}	Peak Forward Current	G	60	mA	1
		B	60		
		R	60		
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	G	95	mW	
		B	60		
		R	95		

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

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
I _v	Luminous Intensity	I _F =20mA	1120	-	1800	mcd	
λ _d	Dominant Wavelength	I _F =20mA	518	-	527	nm	
θ _{1/2}	Angle of Half Intensity	I _F =20mA	-	±60	-	deg	

Electrical Characteristics (Green)

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
V _F	Forward Voltage	I _F =20mA	2.7	-	3.5	V	
I _R	Reverse Current	V _R =5V	-	-	1	μA	

**Optical Characteristics (Blue)**

<i>Symbol</i>	<i>Parameters</i>	<i>Test Conditions</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>	<i>Units</i>	<i>Notes</i>
I _v	Luminous Intensity	I _F =20mA	285	-	565	mcd	
λ _d	Dominant Wavelength	I _F =20mA	465	-	475	nm	
θ _{1/2}	Angle of Half Intensity	I _F =20mA	-	±60	-	deg	

Electrical Characteristics (Blue)

<i>Symbol</i>	<i>Parameters</i>	<i>Test Conditions</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>	<i>Units</i>	<i>Notes</i>
V _F	Forward Voltage	I _F =20mA	2.7	-	3.5	V	
I _R	Reverse Current	V _R =5V	-	-	1	μA	

Optical Characteristics (Red)

<i>Symbol</i>	<i>Parameters</i>	<i>Test Conditions</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>	<i>Units</i>	<i>Notes</i>
I _v	Luminous Intensity	I _F =20mA	565	-	900	mcd	
λ _d	Dominant Wavelength	I _F =20mA	618	-	626	nm	
θ _{1/2}	Angle of Half Intensity	I _F =20mA	-	±60	-	deg	

Electrical Characteristics (Red)

<i>Symbol</i>	<i>Parameters</i>	<i>Test Conditions</i>	<i>Min</i>	<i>Typ</i>	<i>Max</i>	<i>Units</i>	<i>Notes</i>
V _F	Forward Voltage	I _F =20mA	1.7	-	2.3	V	
I _R	Reverse Current	V _R =5V	-	-	1	μA	

Notes:

I_{FP} Conditions--Pulse Width ≤ 100μs and Duty ≤ 10%.

Soldering time ≤ 10 seconds.

Tolerance of Luminous Intensity ±10%.

Tolerance of Dominant Wavelength: ±1nm.

Tolerance of Forward Voltage: ±0.1V.



Typical Characteristic Curves

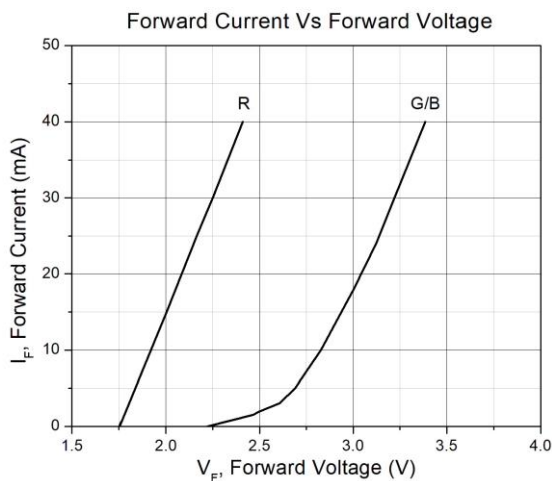


Figure 1

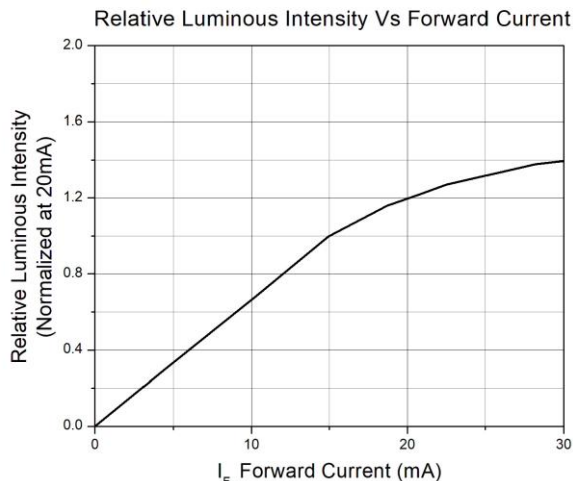


Figure 2

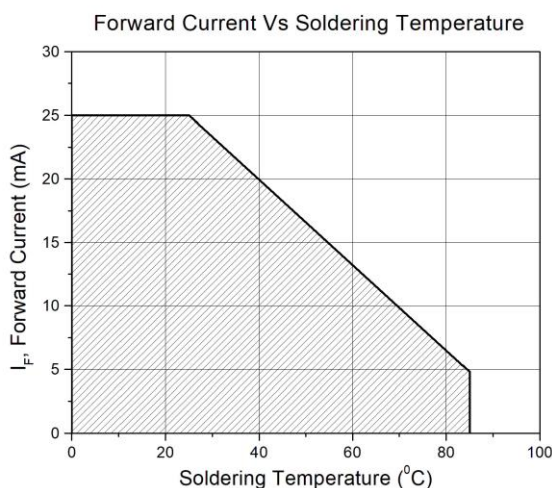


Figure 3

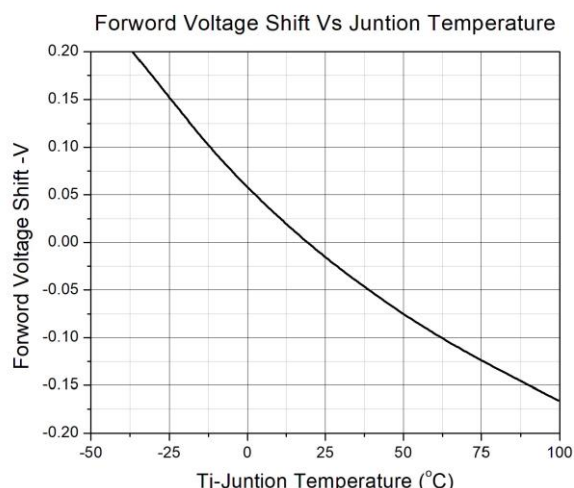


Figure 4

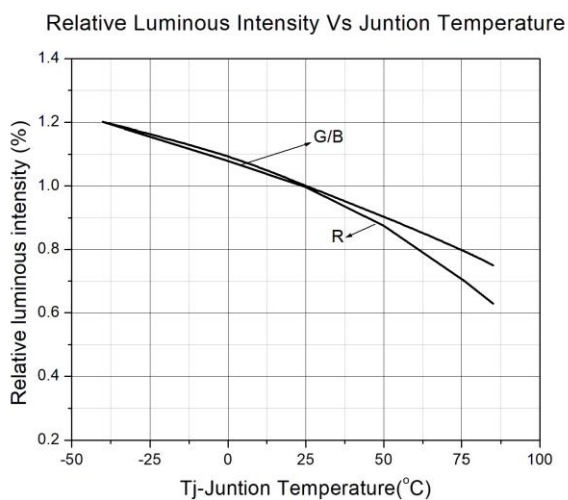


Figure 5

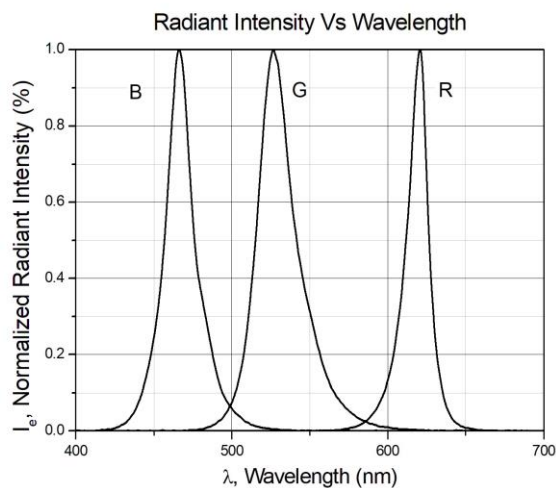
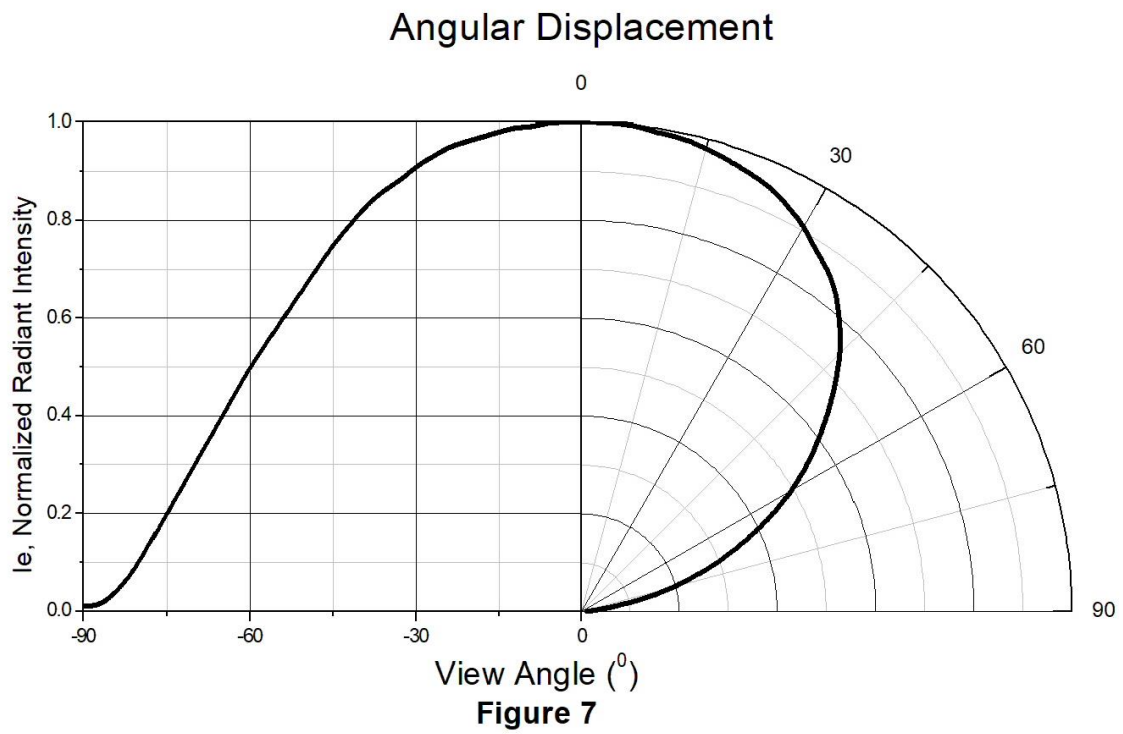


Figure 6

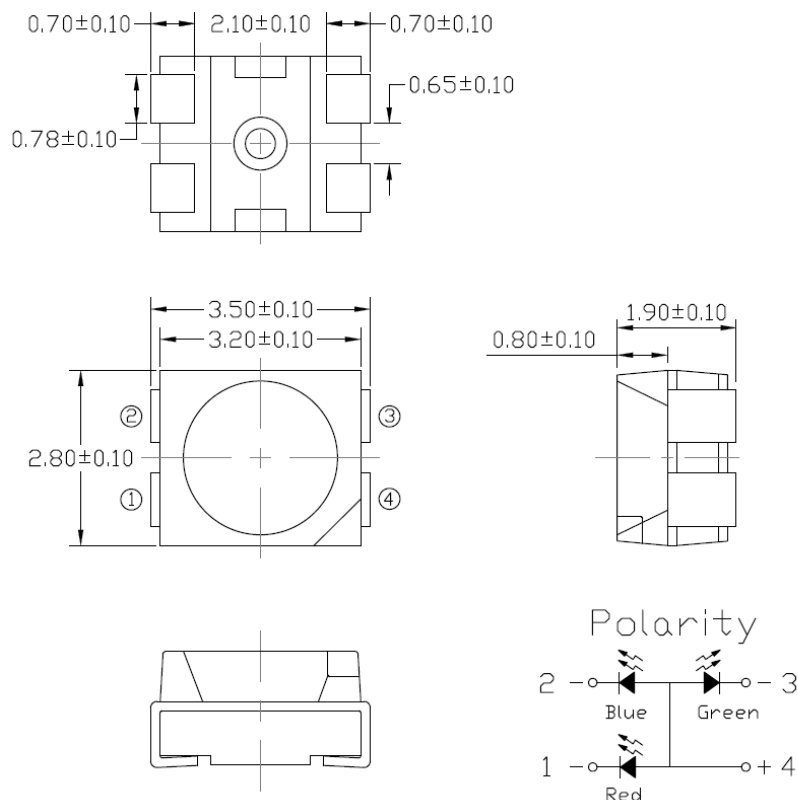


Typical Characteristic Curves



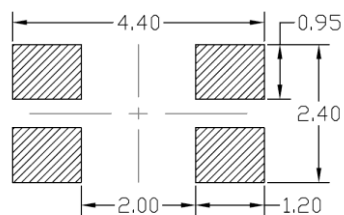


Package Dimension *All dimensions are in mm, unless otherwise stated*



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

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



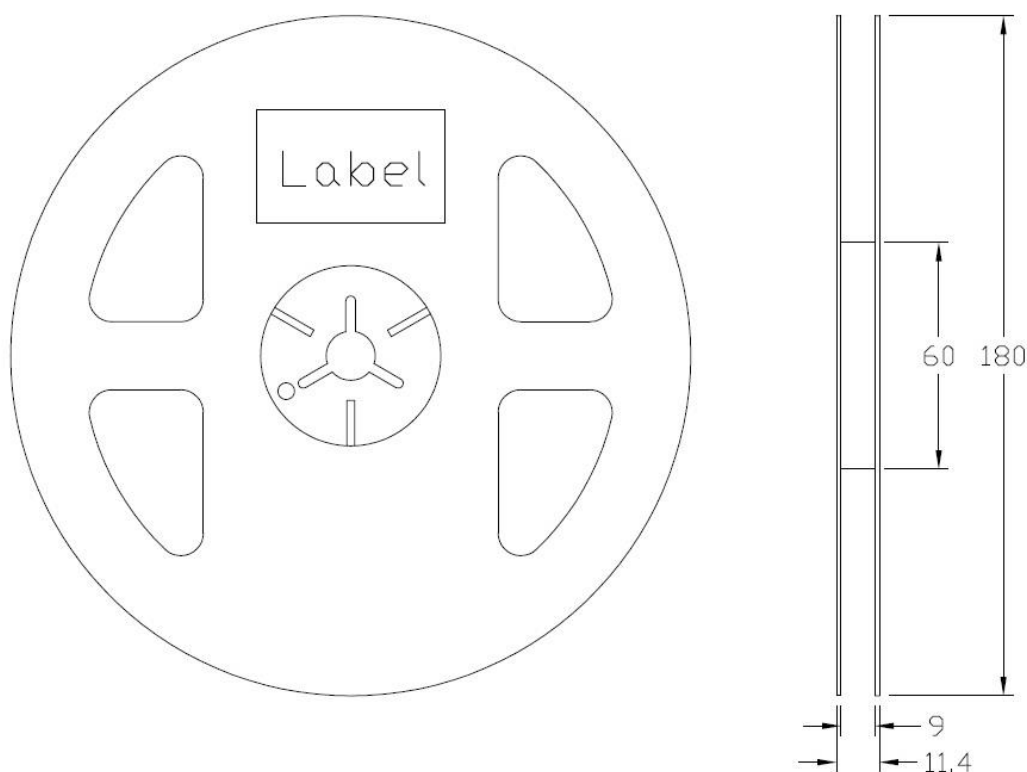
Note: Tolerance unless mentioned is $\pm 0.1\text{mm}$

Ordering Information

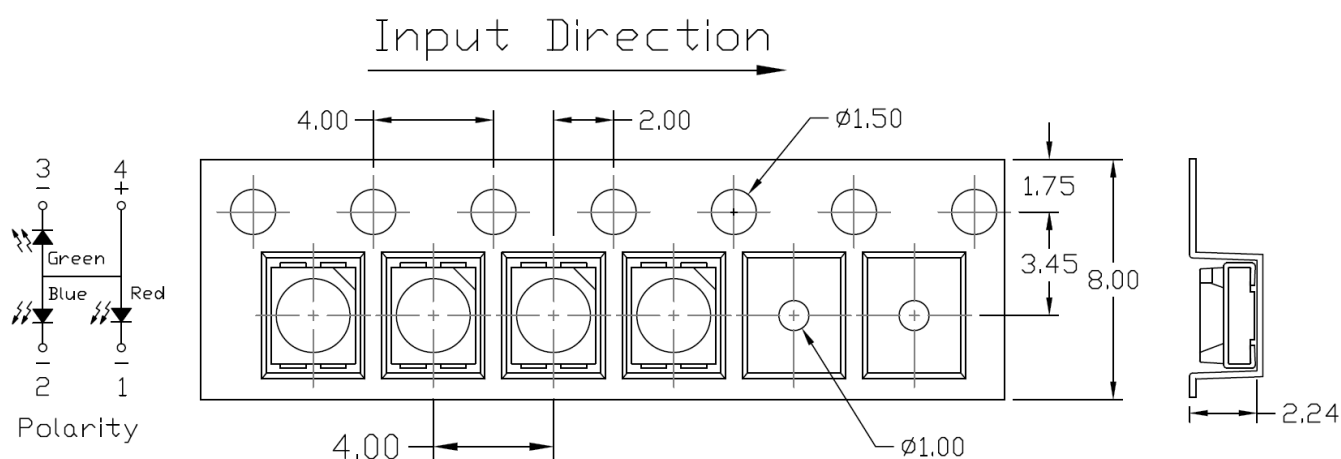
Part Number	Description	Quantity
GBRC352819-ATC2	Tape & Reel	2000 pcs



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

MSL-X
MADE IN CHINA

CT Micro
International Corporation

CPN: XXXXXXXXXXXXXXXXX
|||||

Part no: XXXXXXXXXXXXXXXX
|||||

Serial no: XXXXXXXXX
|||||

Lot no: XXXXXXXXX
|||||

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

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

QR Code

RoHS

Pb

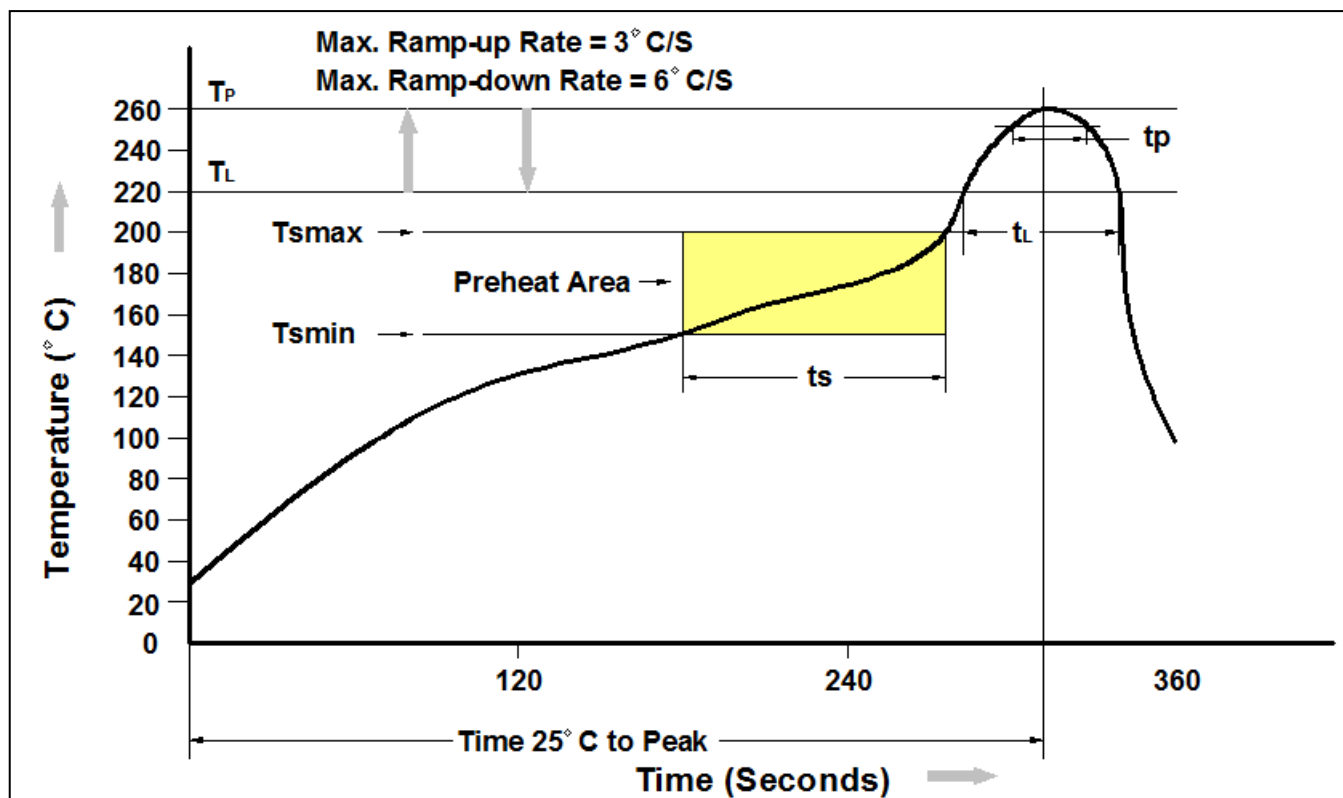
CPN : Customer Part Number
Part no: CTM Production Number
Serial no: Production Number
Lot no: Lot number
Q'ty: Packing Quantity
Date Code: Manufacture Date
IV : Bin Code of Luminous Intensity
WD : Bin Code of Dominant Wavelength
VF : Bin Code of Forward Voltage
MADE IN CHINA: Production Place

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 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. (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.*