



RBP321015-NASC2

Dual Wavelength SMD Type Emitter

Features

- Side view 1204 package
- Viewing Angle = $\pm 65^\circ$
- Compatible with infrared and vapor phase reflow solder process
- High reliability
- Dual dominant wavelength (R=622nm , B=470nm)
- RoHS compliance

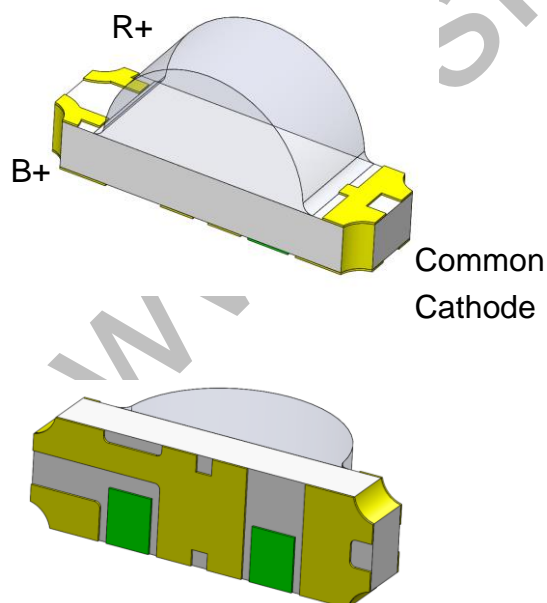
Applications

- Optical indicator.
- Switch and Symbol Display.

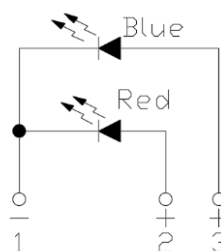
Description

The RBP321015-NASC2 is a double LED housed in a miniature SMD package. The device has a dominant wavelength of 622 nm and 470 nm LED.

Package Outline



Schematic



**Absolute Maximum Rating at 25°C**

Symbol	Parameters		Ratings	Units	Notes
I _F	Continuous Forward Current	R	25	mA	
		B	25		
I _{FP}	Peak Forward Current	R	60	mA	
		B	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	
P _D	Power Dissipation at(or below) 25°C Free Air Temperature	R	60	mW	
		B	95		

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

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
I _v	Luminous Intensity	I _F =20mA	57	-	140	mcd	
λ _p	Peak Wavelength	I _F =20mA	-	632	-	nm	
λ _D	Dominant Wavelength	I _F =20mA	-	622	-	nm	
θ _{1/2}	Angle of Half Intensity	I _F =20mA	-	±65	-	deg	

Electrical Characteristics

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
V _F	Forward Voltage	I _F =20mA	1.7	-	2.4	V	
I _R	Reverse Current	V _R =5V	-	-	1	μA	

**Optical Characteristics (Blue)**

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
I _v	Luminous Intensity	I _F =20mA	112	-	285	mcd	
λ _p	Peak Wavelength	I _F =20mA	-	466	-	nm	
λ _D	Dominant Wavelength	I _F =20mA	460	-	475	nm	
θ _{1/2}	Angle of Half Intensity	I _F =20mA	-	±65	-	deg	

Electrical Characteristics

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
V _F	Forward Voltage	I _F =20mA	2.6	-	3.3	V	
I _R	Reverse Current	V _R =5V	-	-	1	μA	

Notes:

The products are sensitive to static electricity and must be carefully taken when handling products.



Typical Characteristic Curves

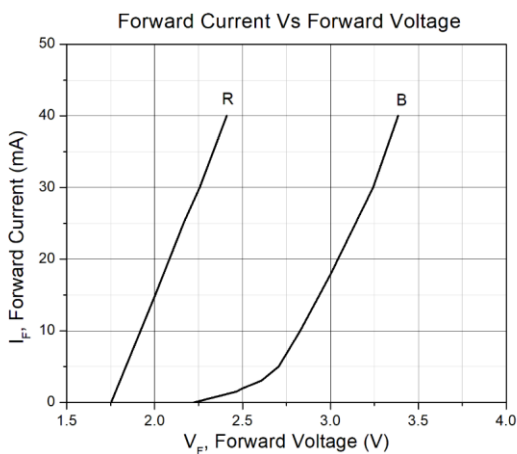


Figure 1

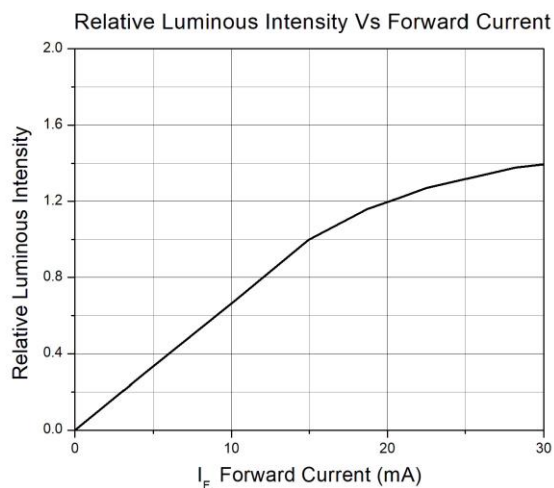


Figure 2

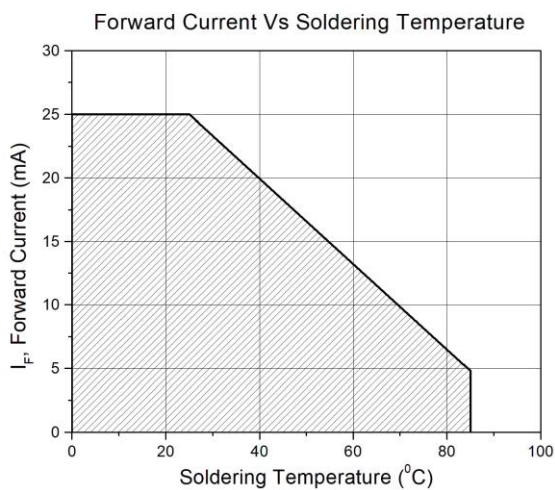


Figure 3

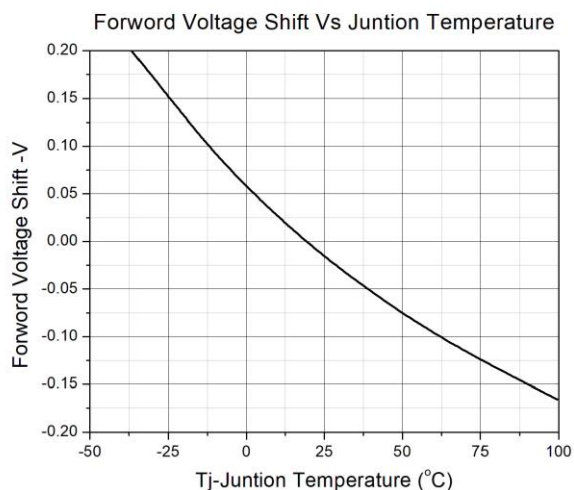


Figure 4

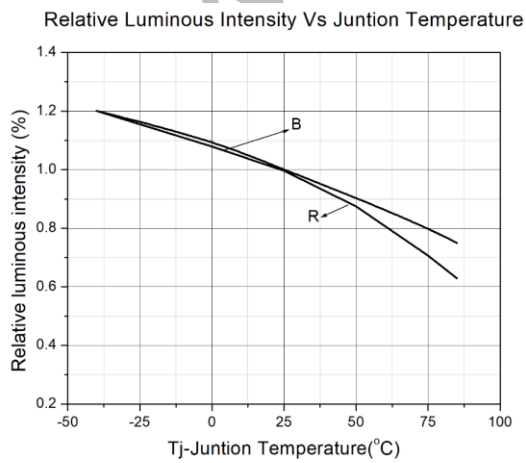


Figure 5

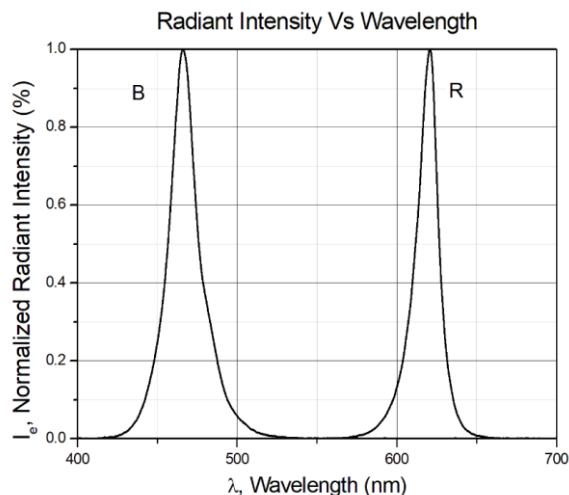
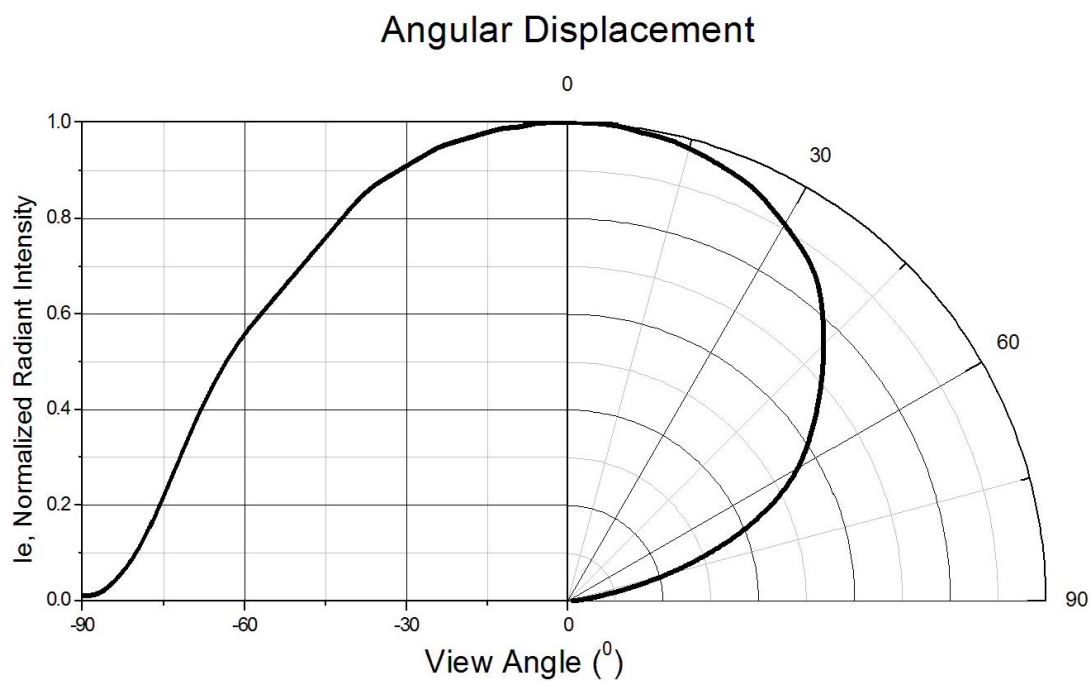


Figure 6



Typical Characteristic Curves

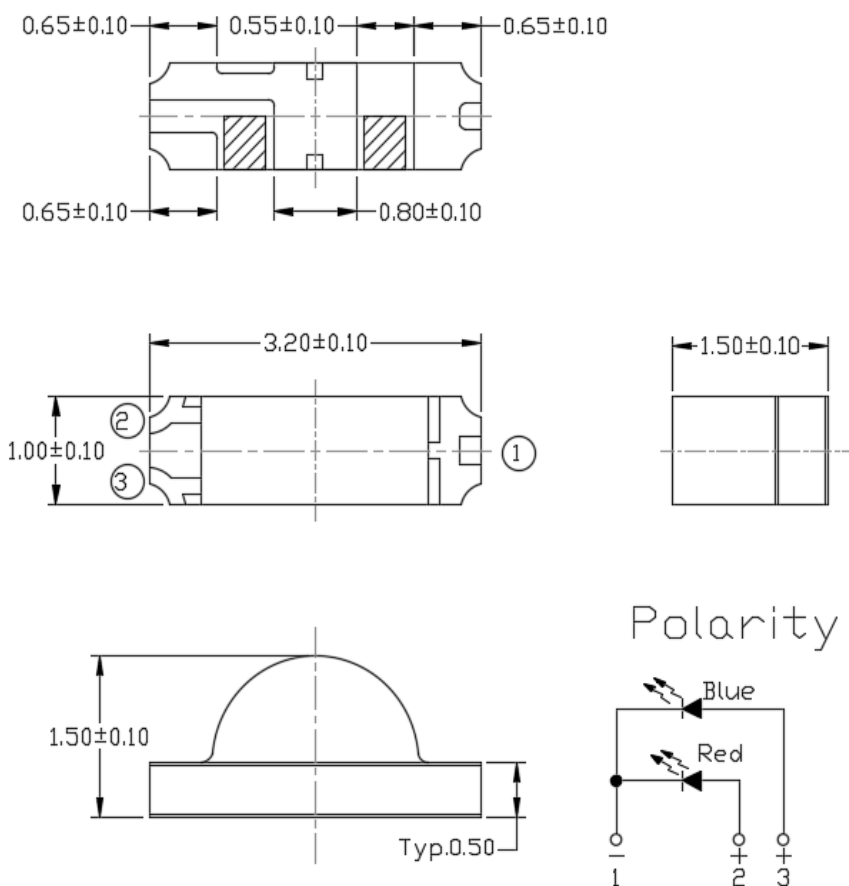


View Angle (°)
Figure 7

WWW.SIG

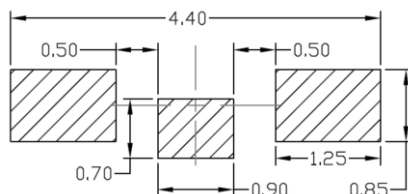


Package Dimension *All dimensions are in mm, unless otherwise stated*



Note: Tolerance unless mentioned is ± 0.1 mm.

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



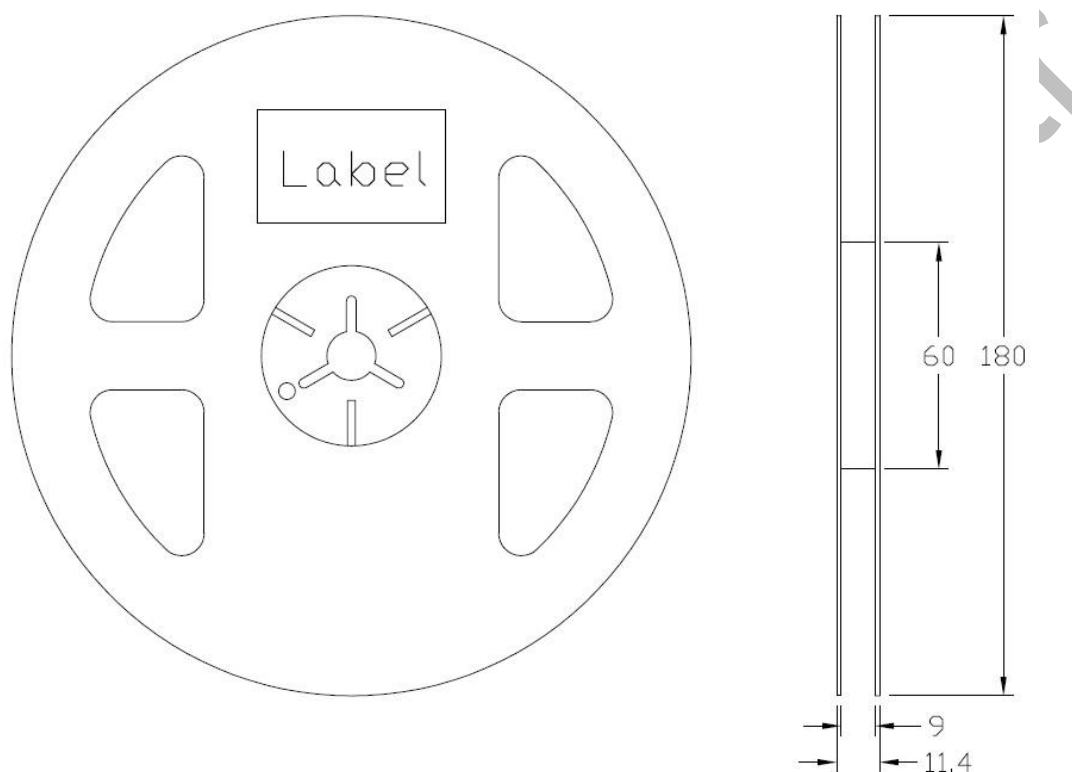
Note: Tolerance unless mentioned is ± 0.1 mm.

Ordering Information

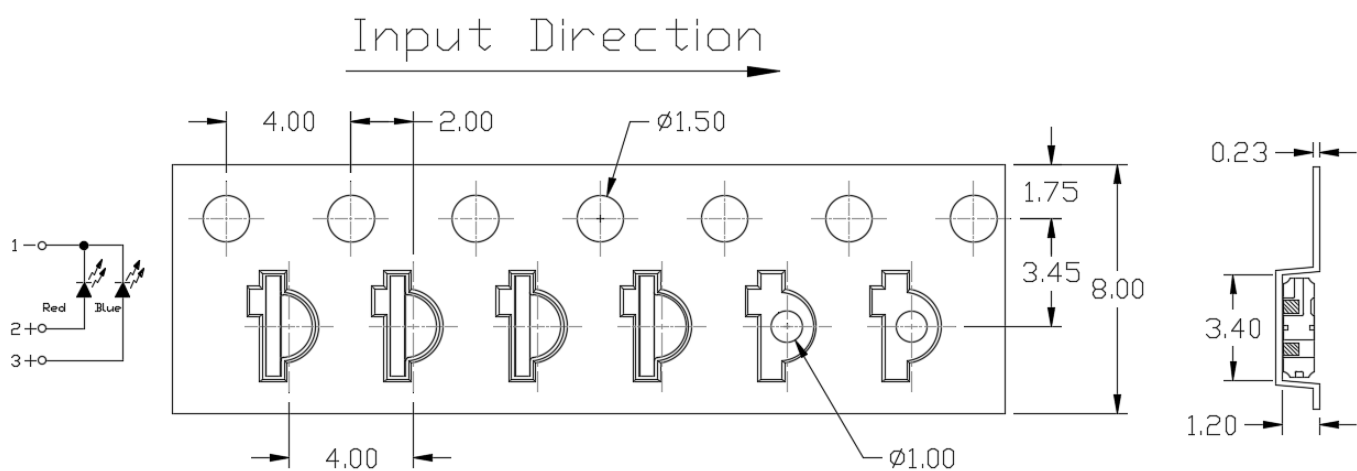
Part Number	Description	Quantity
RBP321015-NASC2	Tape & Reel	2000 pcs



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



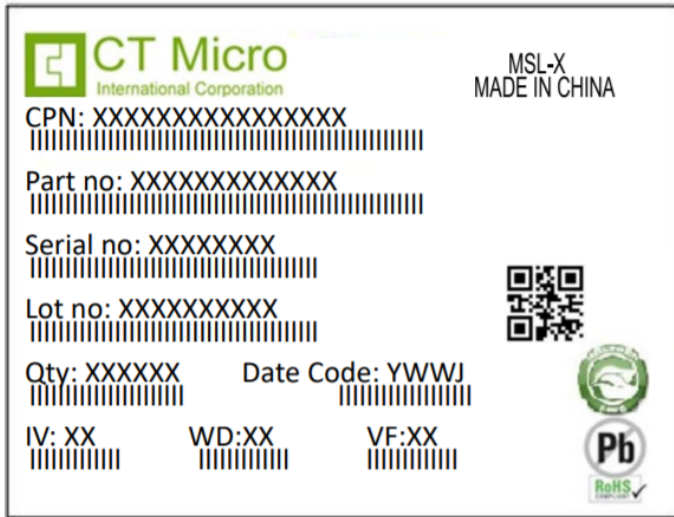
Tape Dimension *All dimensions are in mm, unless otherwise stated*



Note: Tolerance unless mentioned is ± 0.1 mm.



Label Form Specification



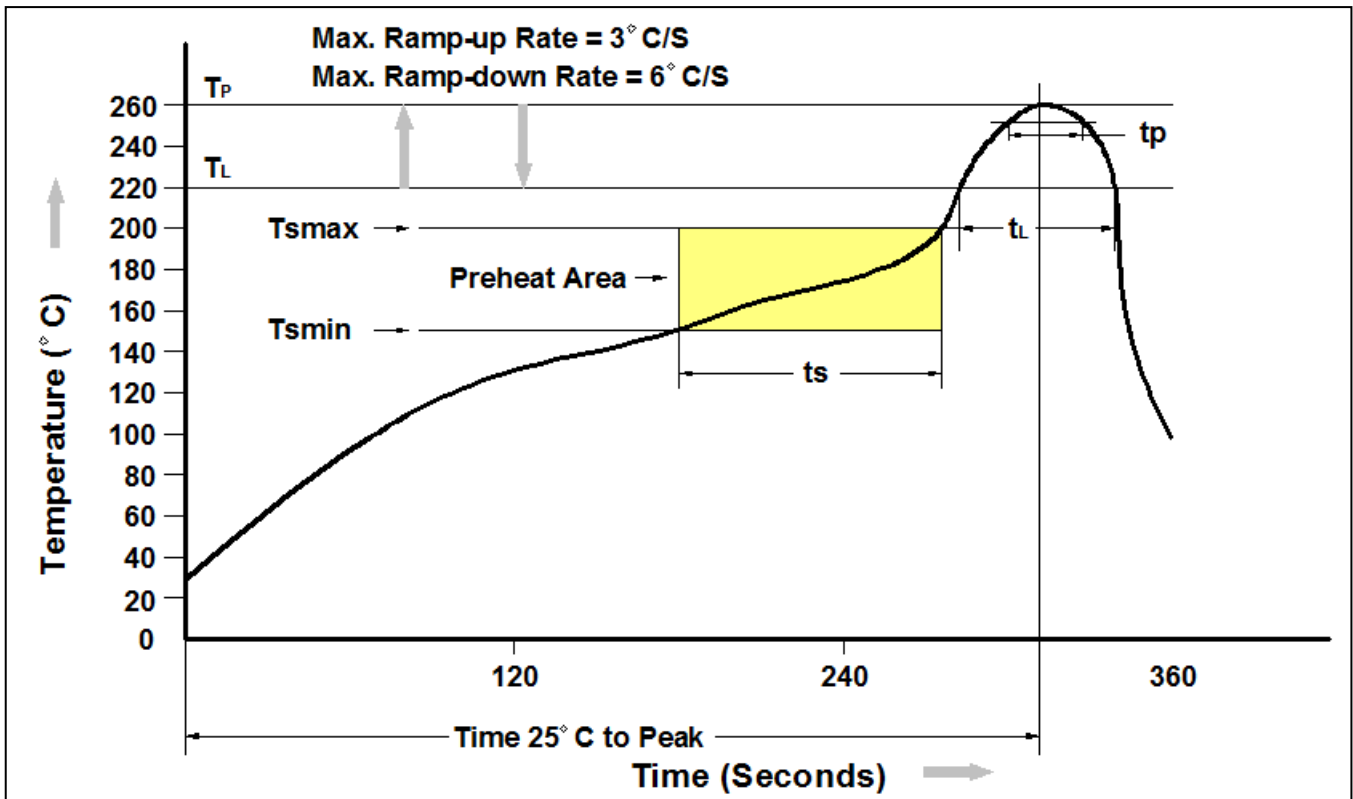
CPN : Customer Part Number
 Part no: CTM Production Number
 Serial no: Production Number
 Lot no: Lot number
 Q'ty: Packing Quantity
 Date Code: Manufacture Date
 IV : Bin Code of Luminous Intensity
 WD : Bin Code of Dominant Wavelength
 VF : Bin Code of Forward Voltage
 MADE IN CHINA: Production Place

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. (Tsmmin)	150°C
Temperature Max. (Tsmmax)	200°C
Time (ts) from (Tsmmin to Tsmmax)	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.*