



WC283507-FTC4

SMD Type White Emitter

Features

- Top view 2835 package
- Viewing Angle = $\pm 60^\circ$
- Compatible with infrared and vapor phase reflow solder process
- High reliability
- Ultra bright White
- RoHS compliance

Applications

- Optical indicator.
- Switch and Symbol Display.

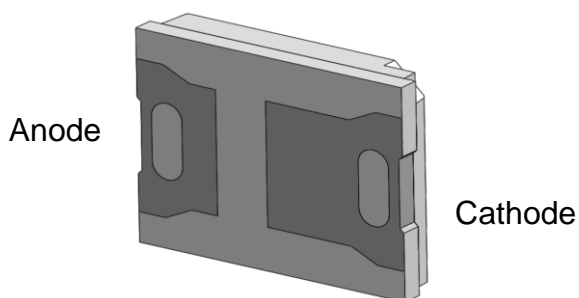
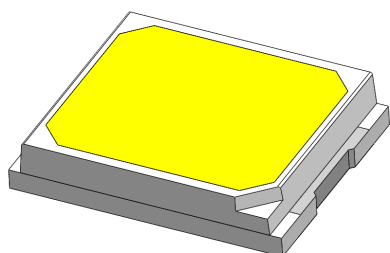
Description

The WC283507-FTC4 is an AlInGaN White LED housed in a miniature SMD package.

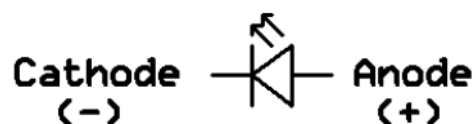
Static electricity and surge damage the LEDs.

It is recommended to use a wrist band or anti-electrostatic glove when handling the LEDs.

Package Outline



Schematic





WC283507-FTC4

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Absolute Maximum Rating at 25°C

Symbol	Parameters	Ratings	Units	Notes
I _F	Continuous Forward Current	150	mA	
I _{FP}	Peak Forward Current	225	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	0.5	W	

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

Optical Characteristics

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
I _v	Luminous Flux	I _F =60mA	28	-	32	lm	3
CCT	Color Temperature	I _F =60mA	3800	-	4300	K	4
R _a	R _a	I _F =60mA	80	-	-	-	
θ _{1/2}	Angle of Half Intensity	I _F =60mA	-	60	-	deg	

Electrical Characteristics

Symbol	Parameters	Test Conditions	Min	Typ	Max	Units	Notes
V _F	Forward Voltage	I _F =60mA	2.7	-	3.3	V	
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 Flux

Bin Code	Min	Max	Unit	Condition
L37-1	28	30	lm	I _F =60mA
L37-2	30	32		

Tolerance of Luminous Flux: ±10%



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4. Bin Range of Forward Voltage

Bin Code	Min	Max	Unit	Condition
34	2.7	2.8	V	I _F =60mA
35	2.8	2.9		
36	2.9	3.0		
37	3.0	3.1		
38	3.1	3.2		
39	3.2	3.3		

Tolerance of Forward Voltage: $\pm 0.05V$

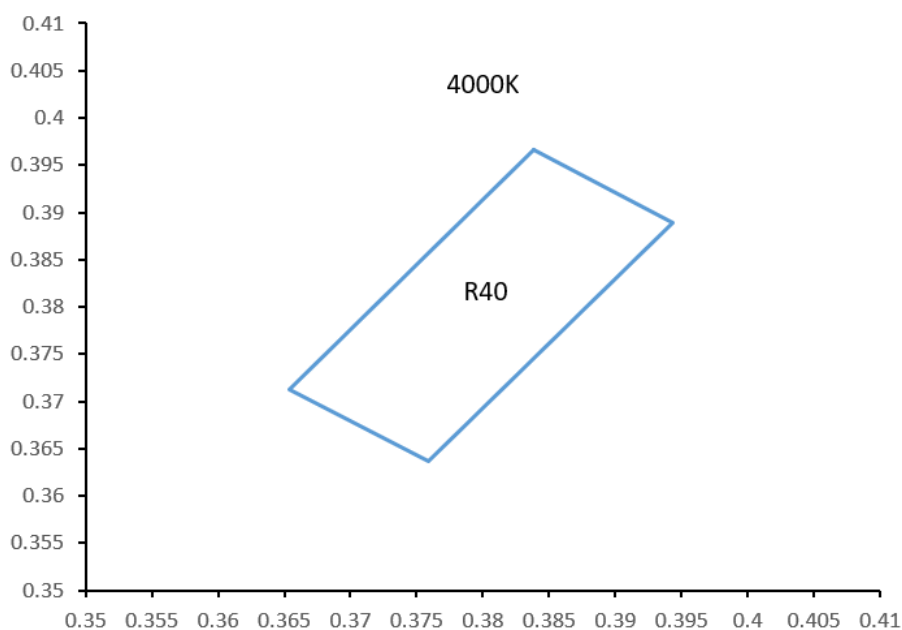
5. Bin Range of Chromaticity Coordinates

CCT	Bin Code	CIE_x	CIE_y
4000K	R40	0.3838	0.3966
		0.3943	0.3889
		0.3759	0.3636
		0.3654	0.3713

1. The value is based on driving current by 60mA

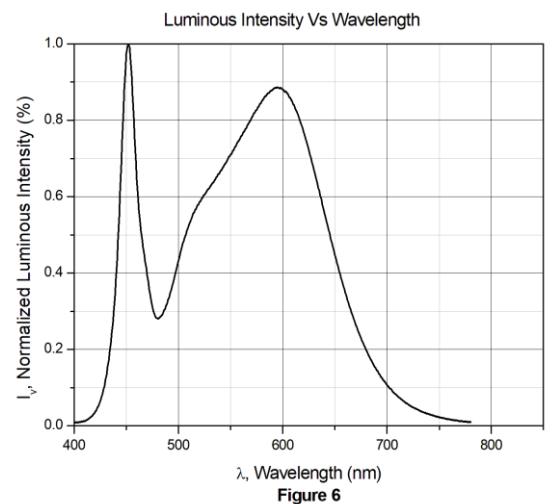
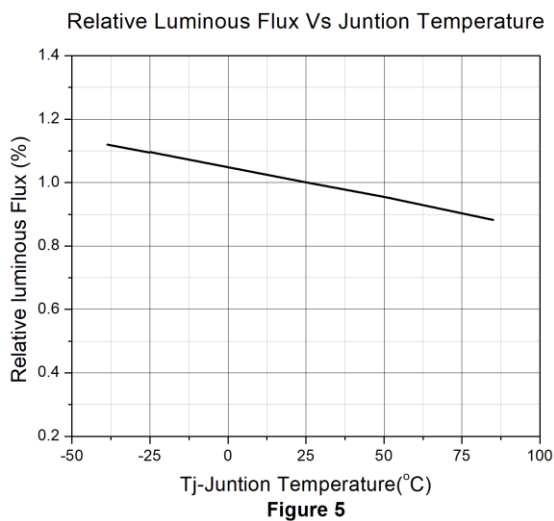
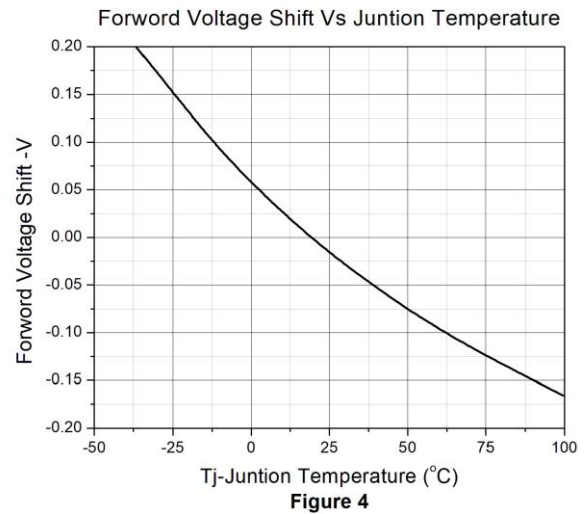
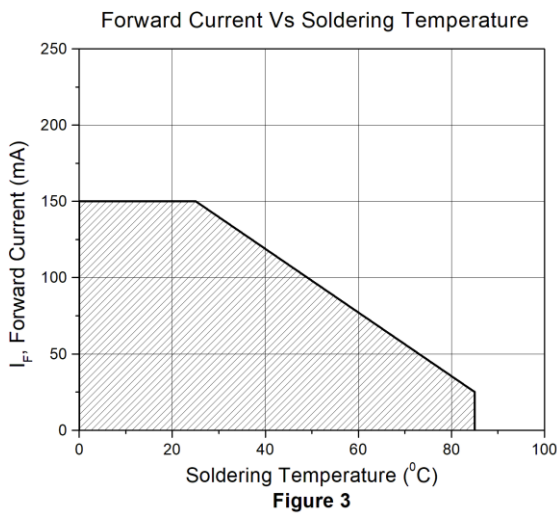
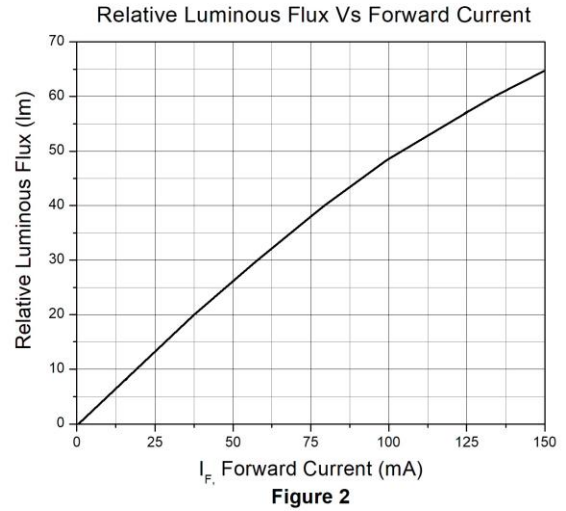
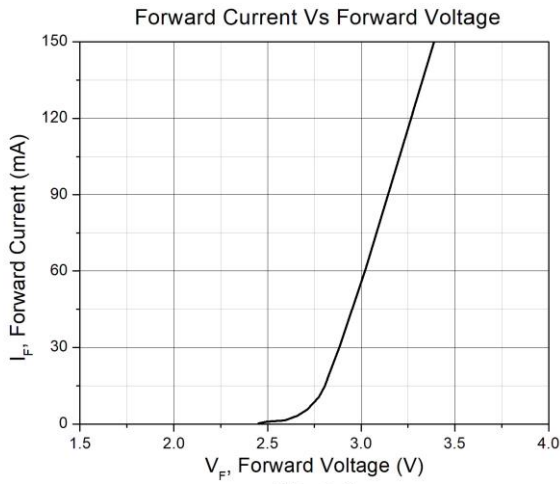
2. Tolerance of Chromaticity Coordinates ± 0.01

The C.I.E. 1931 Chromaticity Diagram





Typical Characteristic Curves





Typical Characteristic Curves

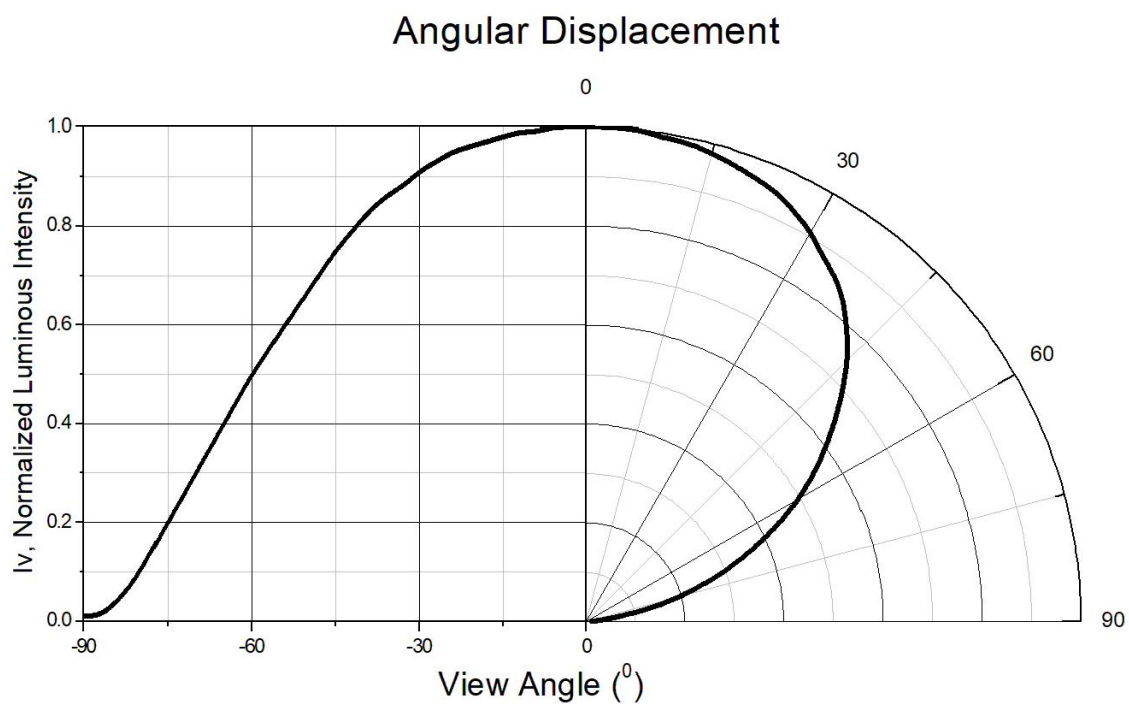


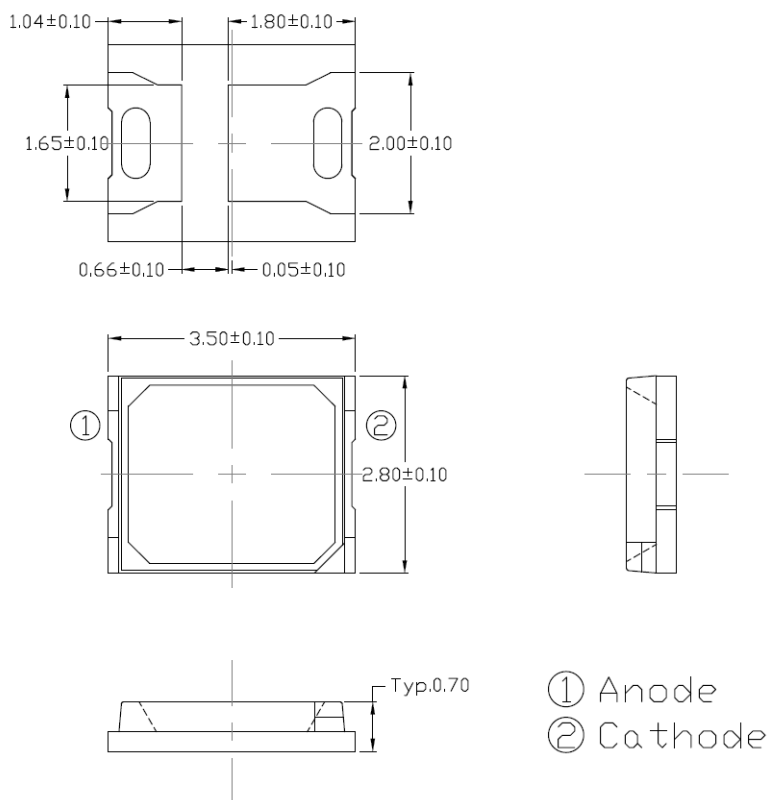
Figure 7



WC283507-FTC4

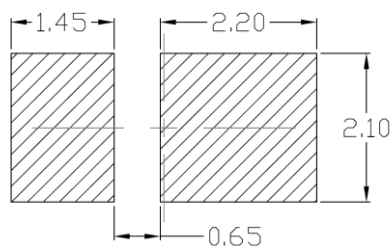
SMD Type White Emitter

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.

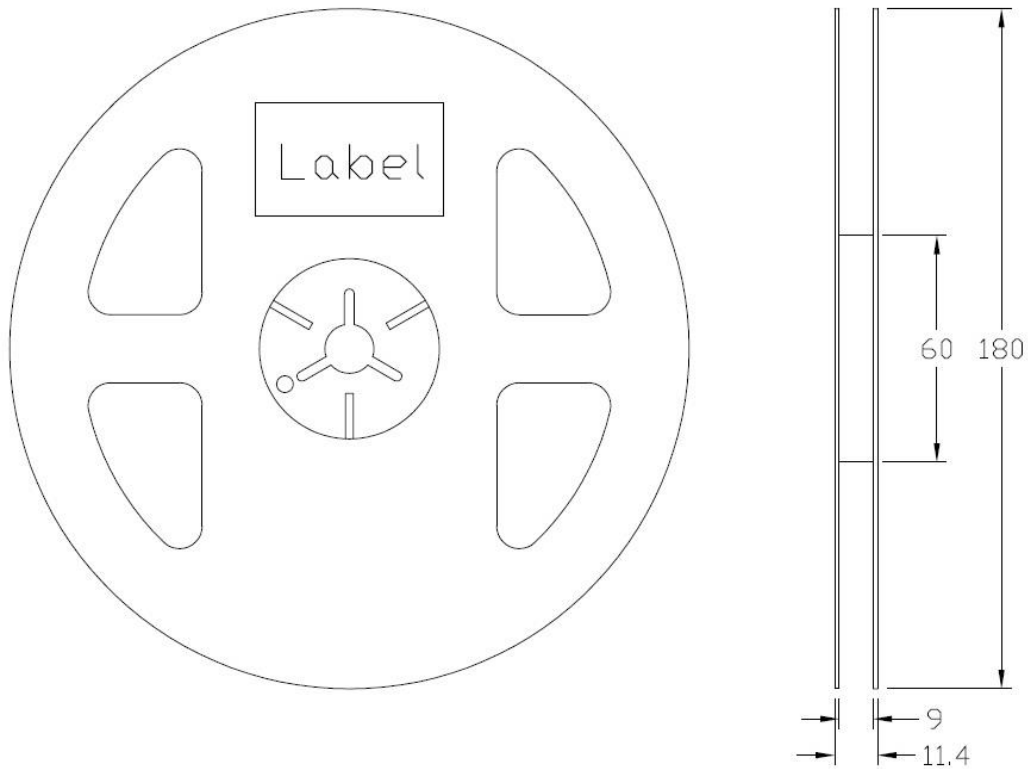
Ordering Information

Part Number	Description	Quantity
WC283507-FTC4	Tape & Reel	4000 pcs

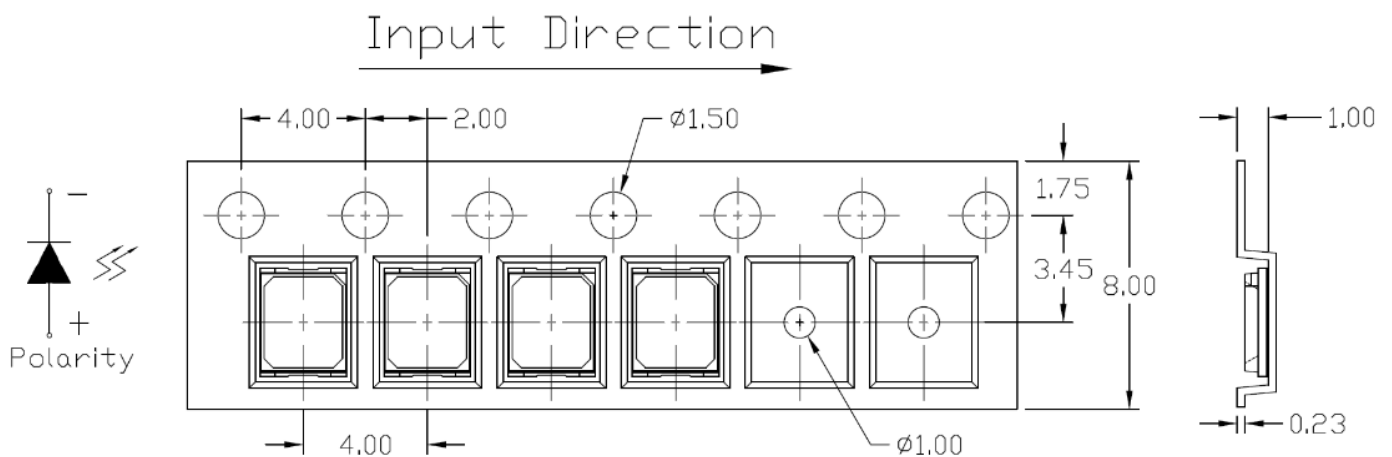


WC283507-FTC4 SMD Type White Emitter

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



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

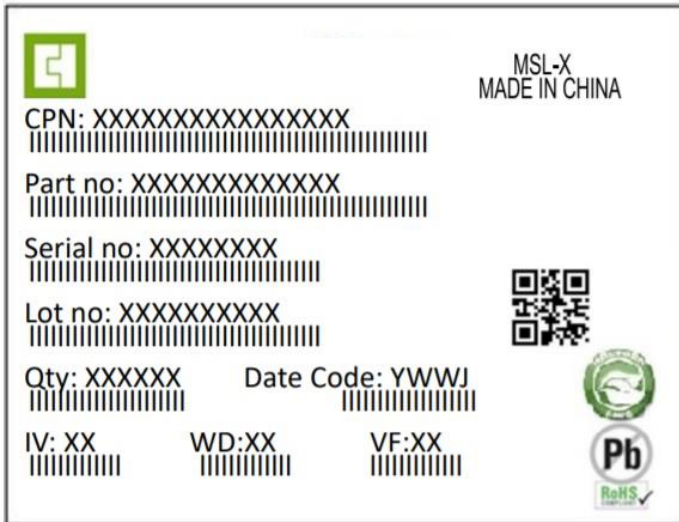


Note: Tolerance unless mentioned is ± 0.1 mm.



WC283507-FTC4 SMD Type White Emitter

Label Form Specification



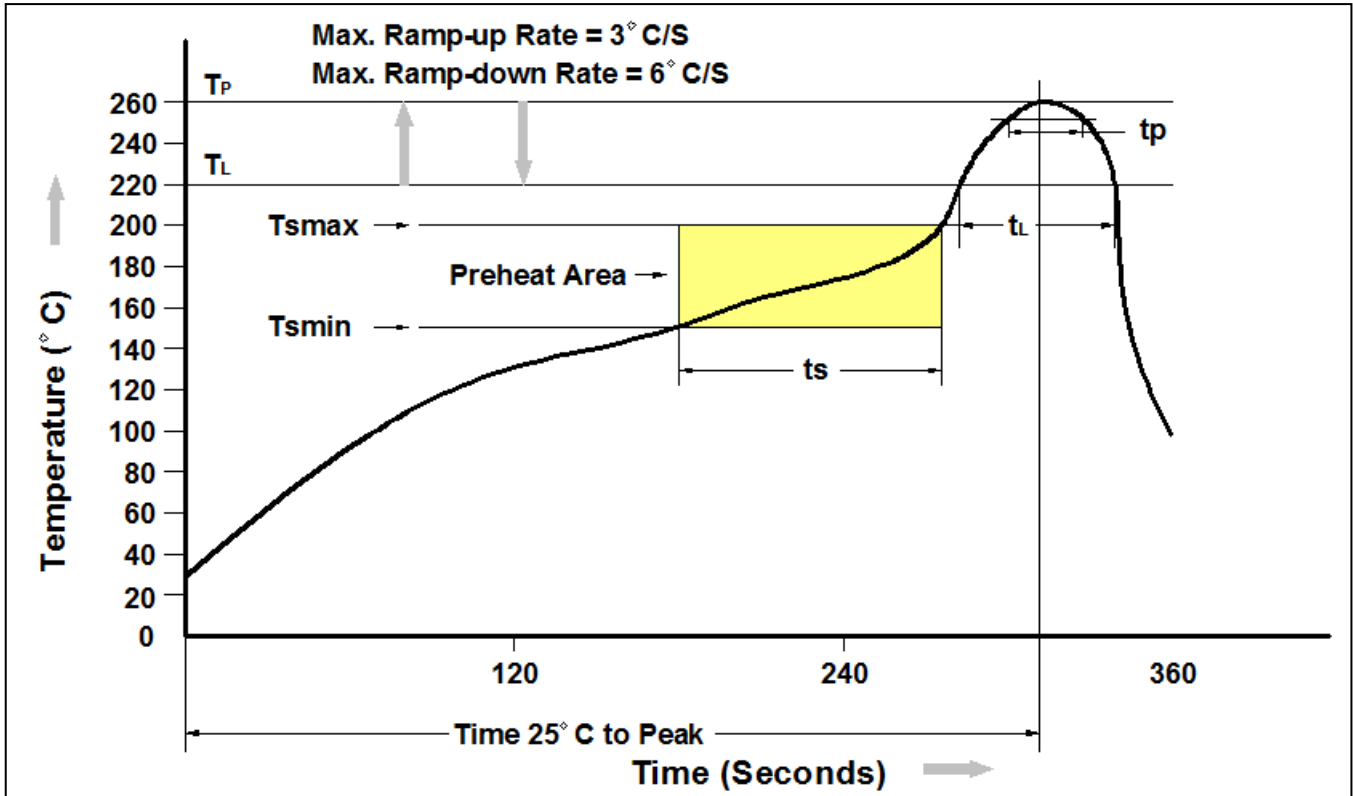
CPN : Customer Part Number
 Part no: CTM Production Number
 Serial no: Production Number
 Lot no: Lot number
 Q'ty: Packing Quantity
 Date Code: Manufacture Date
 IV : Bin Code of Luminous Intensity
 WD : Bin Code of Dominant Wavelength
 VF : Bin Code of Forward Voltage
 MADE IN CHINA: Production Place

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 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. (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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