



Opto Plus LED Corp

OPS-L955MWC-Z

3.5 x 2.8 x 1.9 mm PLCC2

● **EDIT HISTORY**

Version A: Sep. 27, 2011

New color data sheet.

Manufacture	Examination	Approving



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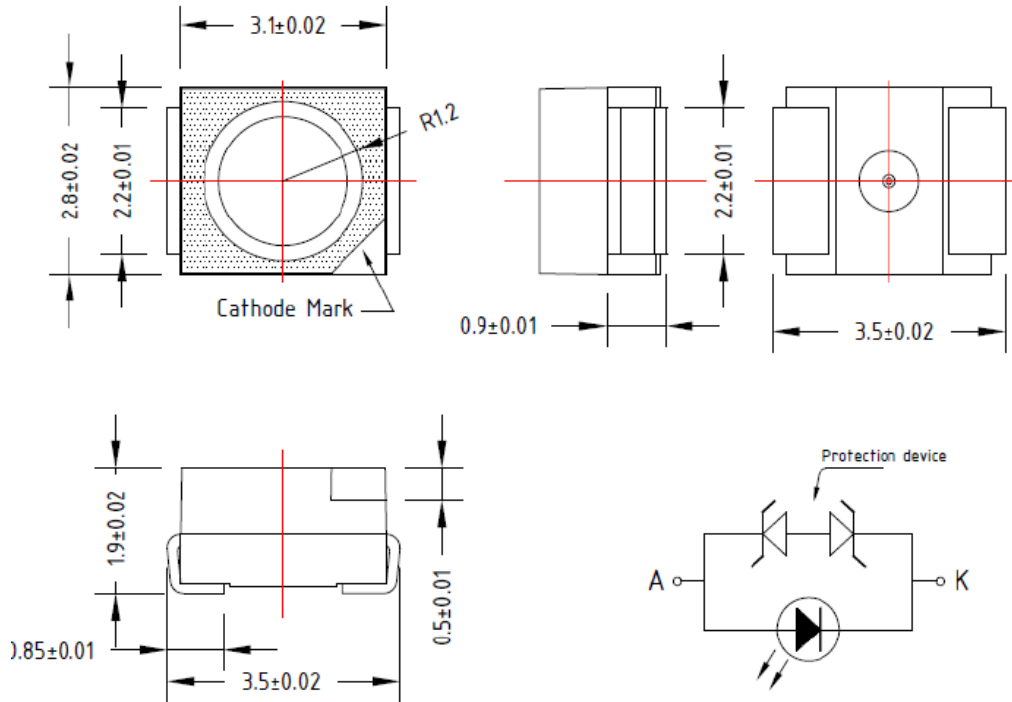
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● FEATURES

- ◆ High Luminous Output Warm White SMD LED Lamp (InGaN)
- ◆ Wide viewing angle 120 degree.
- ◆ Low current requirement.
- ◆ IR reflow soldering.
- ◆ High reliability package

● PACKAGE DIMENSIONS



Item	Materials
Package	Heat-Resistant Polymer
Encapsulating Resin	Silicone
Electrodes	Ag Plating Copper Alloy

NOTES:

1. All dimensions are in millimeters (inches);
2. Electrical Connection between all Cathodes is Recommended

RoHS Compliance



Pb free.





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● ABSOLUTE MAXIMUM RATINGS AT TA=25°C

Parameter	Symbol	Ultra Bright Red	Unit
Power Dissipation	P_{AD}	72	mW
Continuous Forward Current	I_{FMAX}	30	mA
Peak Forward Current (duty cycle 1/10, 0.1ms Pulse Width)	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Operating Temperature Range	T_{OPR}	-30 to +85	°C
Storage Temperature Range	T_{STG}	-40 to +100	°C
Solder Temperature	T_{SOL}	265°C for 10sec	

I_{FP} Conditions: Pulse Width ≤ 10msec and Duty ≤ 1/10

● ELECTRICAL OPTICAL CHARACTERISTICS AT TA=25°C

Characteristic	Symbol	Condition	Min.	Type	Max.	Unit
Forward Voltage	V_F	$I_F = 20mA$	-	3.1	3.5	V
Reverse Current	I_R	$V_R = 5V$	-	-	50	μA
Chromaticity Coordinate	X	$I_F = 20mA$	-	0.41	-	nm
Chromaticity Coordinate	Y	$I_F = 20mA$	-	0.39	-	nm
Luminous Intensity	I_V	$I_F = 20mA$	1700	2000	-	mcd

Notes: Luminous intensity tolerance is 10%



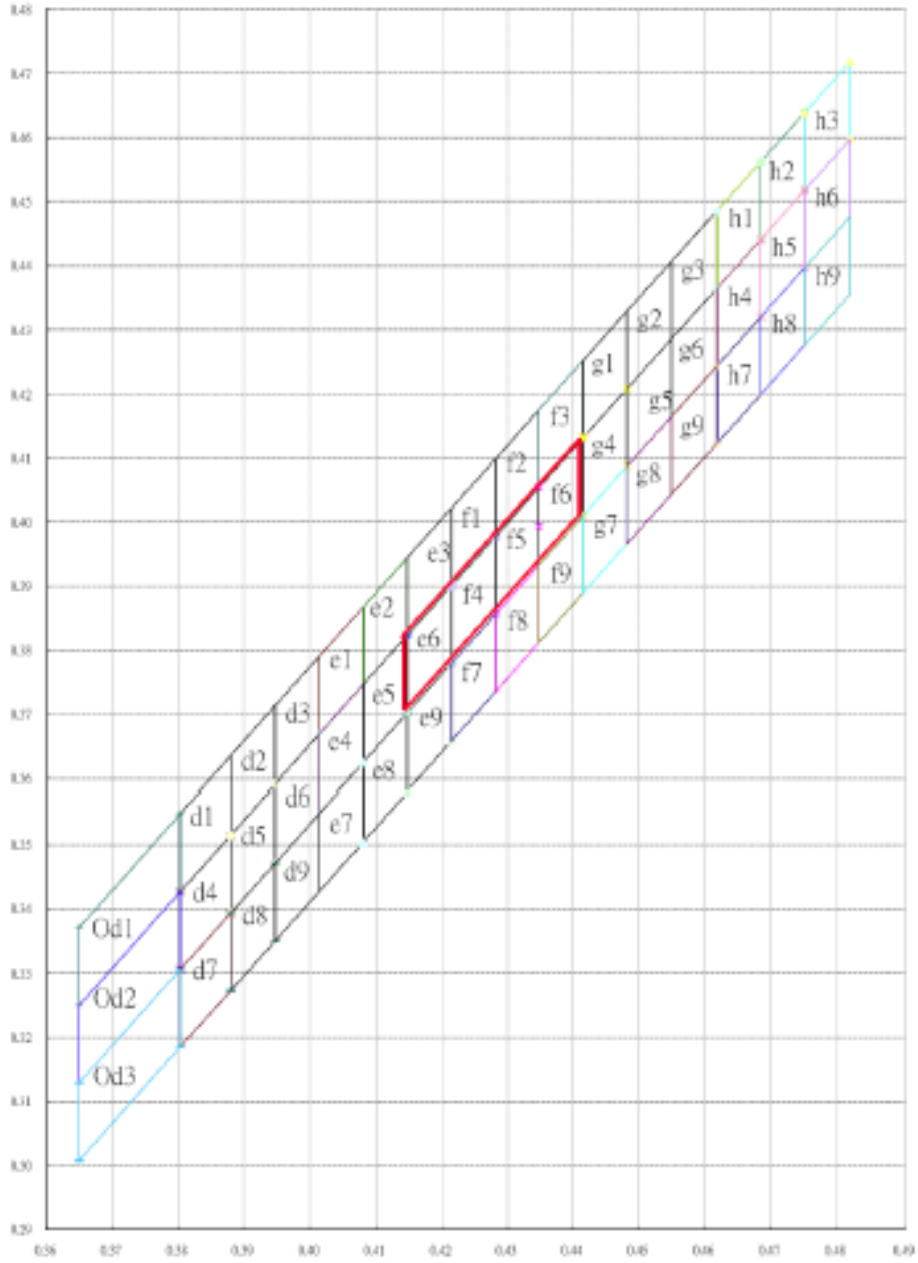
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Chromaticity Diagram

(Red Box Only)





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Color Ranks

BIN e6				
x	0.4014	0.4014	0.4081	0.4215
y	0.3548	0.3669	0.3746	0.3625

BIN f4				
x	0.4215	0.4215	0.4282	0.4282
y	0.3779	0.39	0.3977	0.3856

BIN f5				
x	0.4282	0.4282	0.4348	0.4348
y	0.3856	0.3977	0.4054	0.3933

BIN f6				
x	0.4348	0.4348	0.4415	0.4415
y	0.3933	0.4054	0.4131	0.401



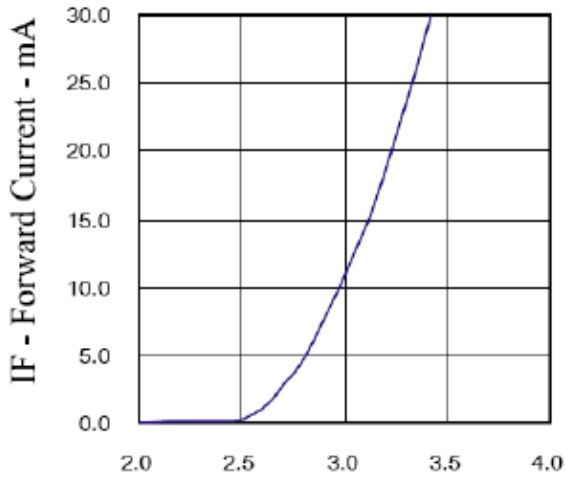
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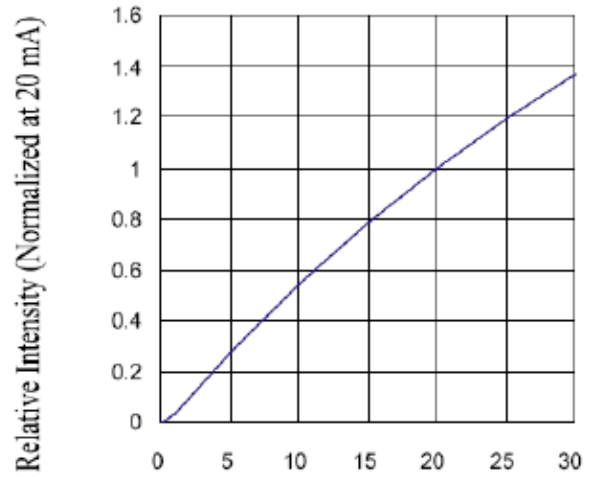
OPTICAL CHARACTERISTIC CURVES:

Forward Current vs. Forward Voltage



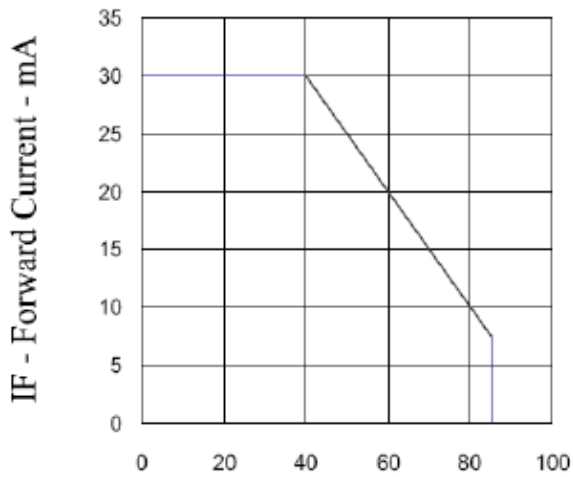
VF - Forward Voltage - V

Relative Intensity vs. Forward Current



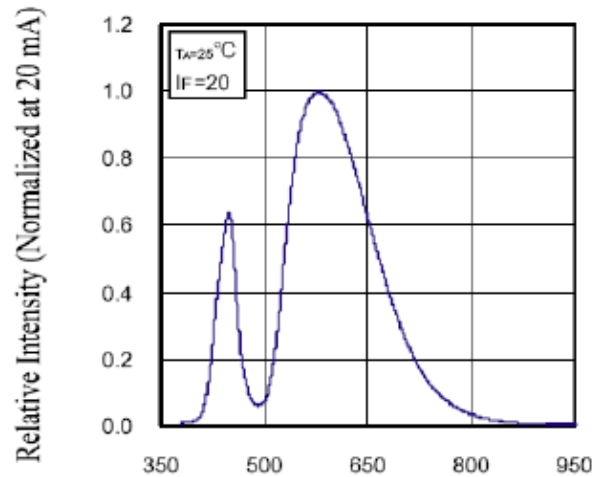
DC Forward Current - mA

Forward Current vs. Ambient Temperature



TA - Ambient Temperature - °C

Relative Intensity vs. Wavelength



Wavelength - nm

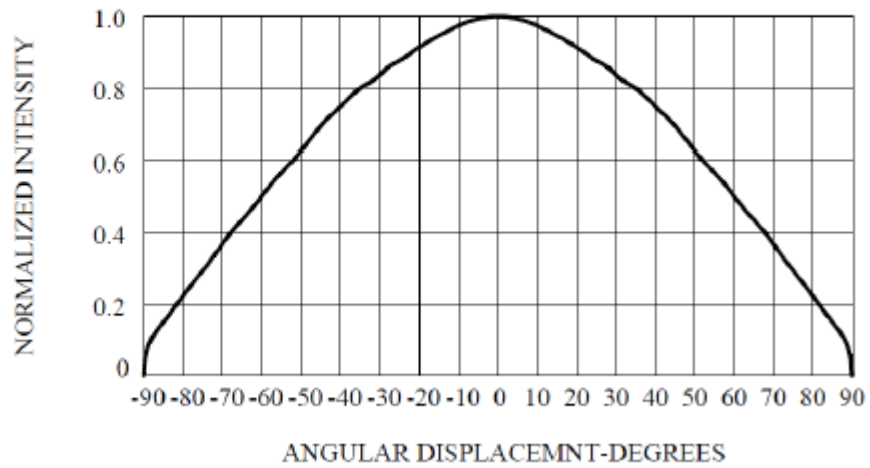


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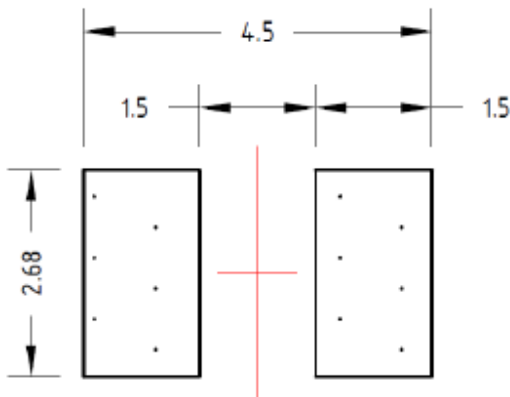
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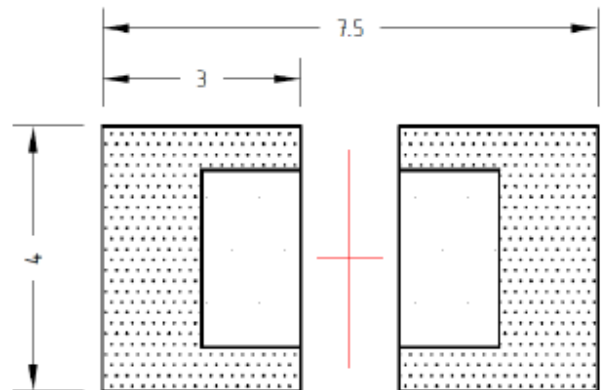
Radiation Pattern




Recommended Soldering Pad Pattern



(Unit:mm)



 Solder resist (Unit:mm)

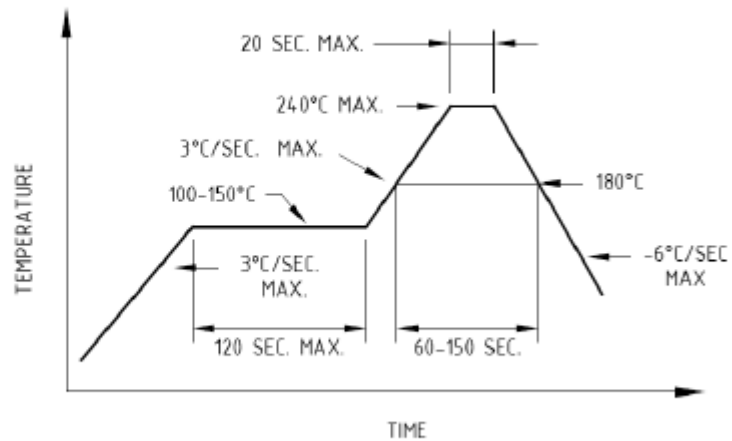


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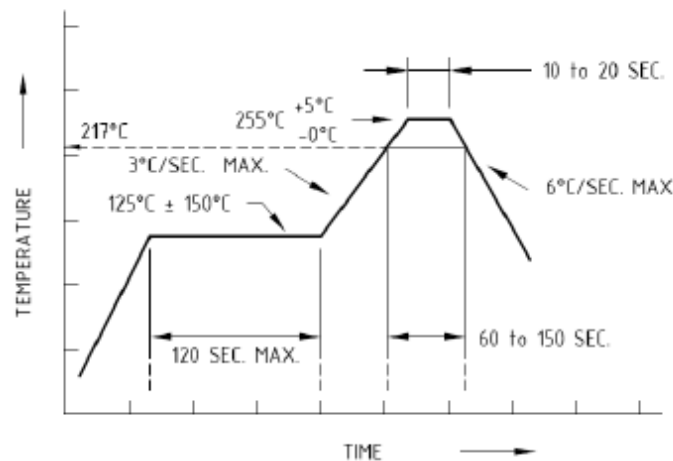
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Soldering Conditions:



Recommended reflow soldering profile



Recommended Pb-free reflow soldering profile

- Repairing should not be done after the LEDs have been soldered. When repairing is unavoidable, a double-head soldering iron should be used. It should be confirmed beforehand whether the characteristics of the LEDs will or will not be damaged by repairing.
- Reflow soldering should not be done more than two times.
- When soldering, do not put stress on the LEDs during heating.
- After soldering, do not warp the circuit board.

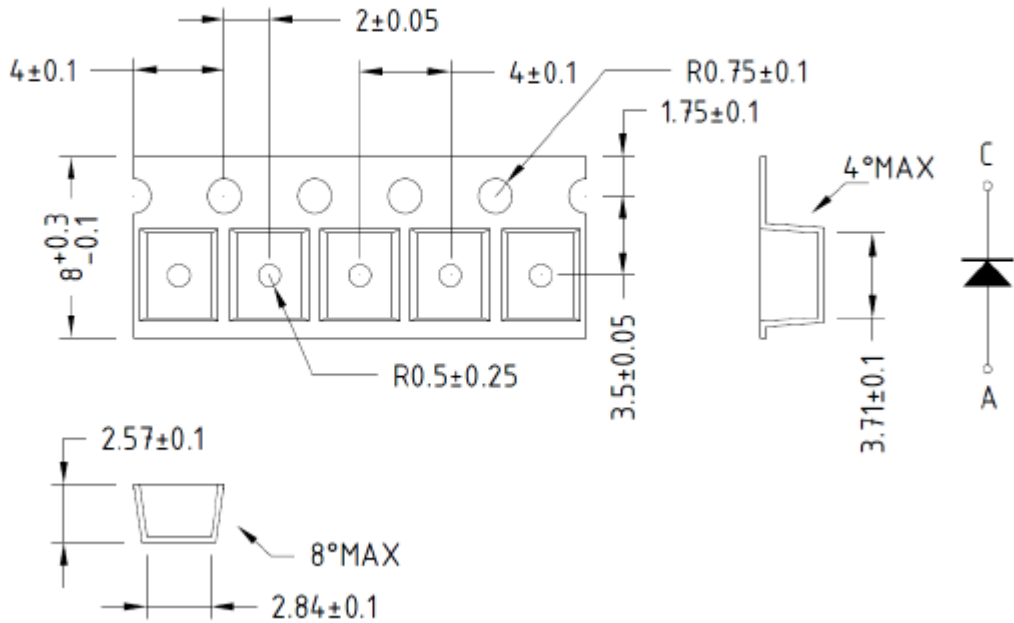


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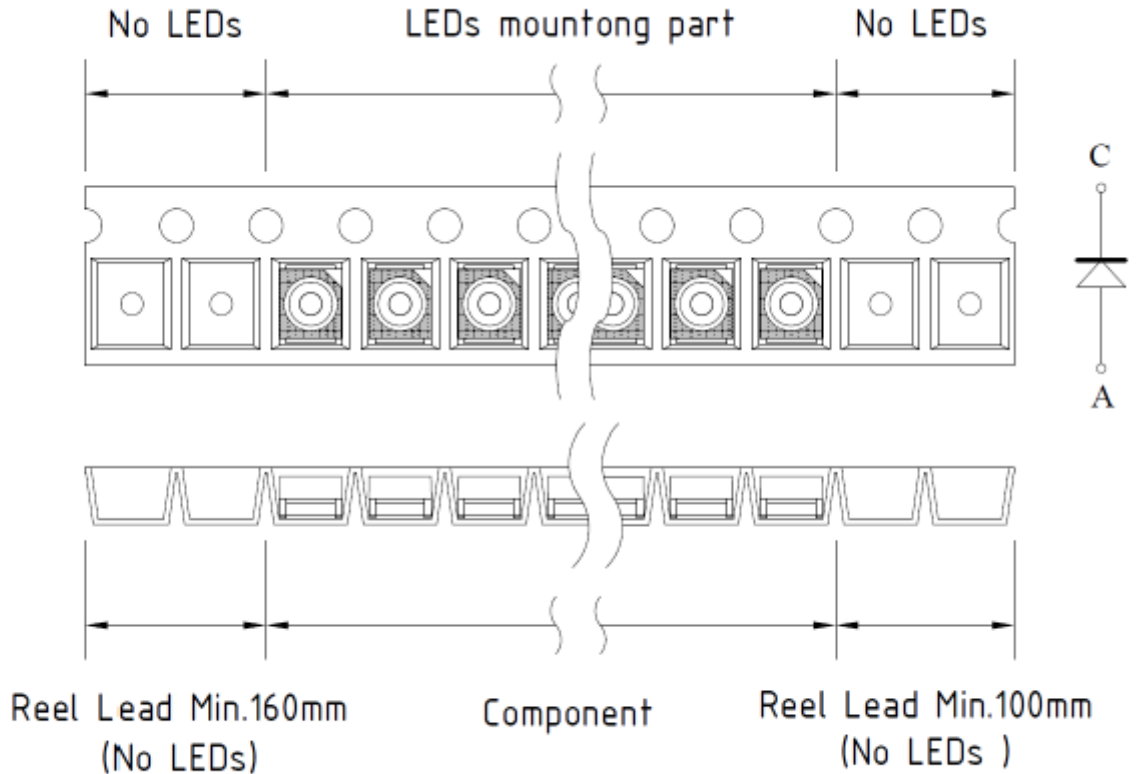
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Tape Dimension



Tape Leader and Trailer Dimension



USER FEED DIRECTION →

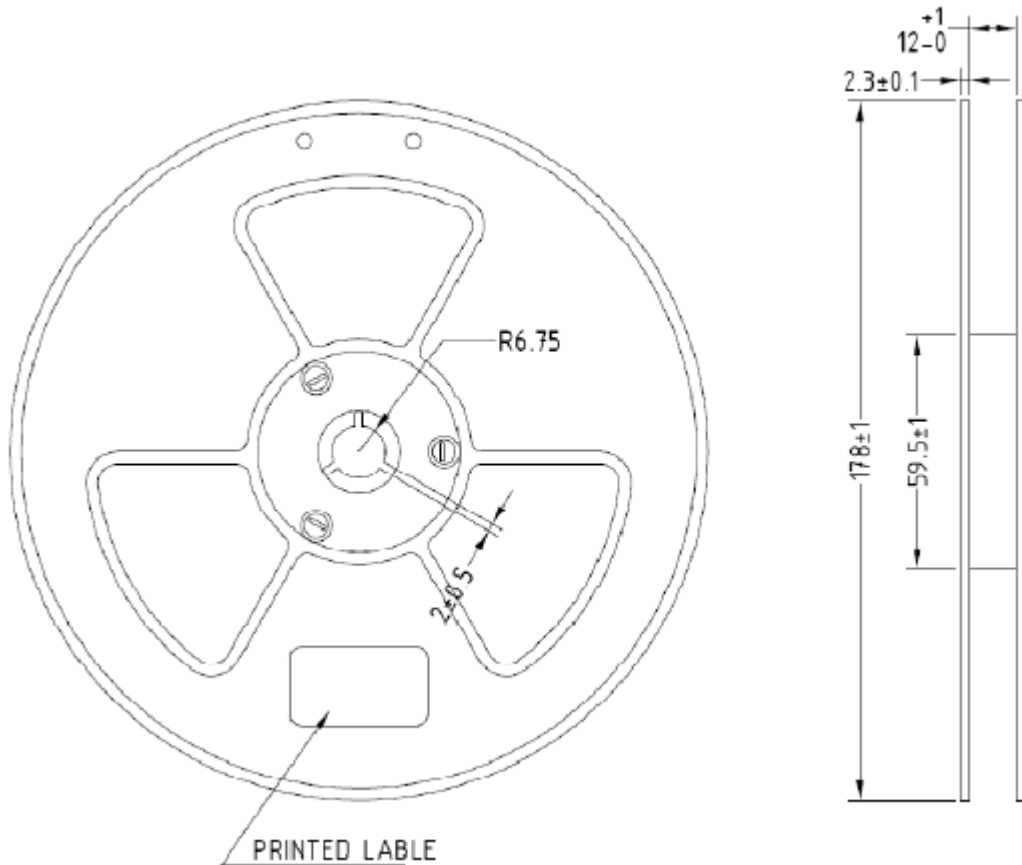


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● PACKAGE DIMENSIONS OF REEL



Note: Baking is required under the following conditions:
The pack has been opened for more than four weeks.
Baking recommended conditions:
 60 ± 5 °C for 20 hours.