

**Feature:**

- Water clear lens
- Package in tape and reel
- Bright 1206 LED package
- InGaN technology for IB/IG/IW
- AllnGaP technology for R/AG/Y/O

**Description:**

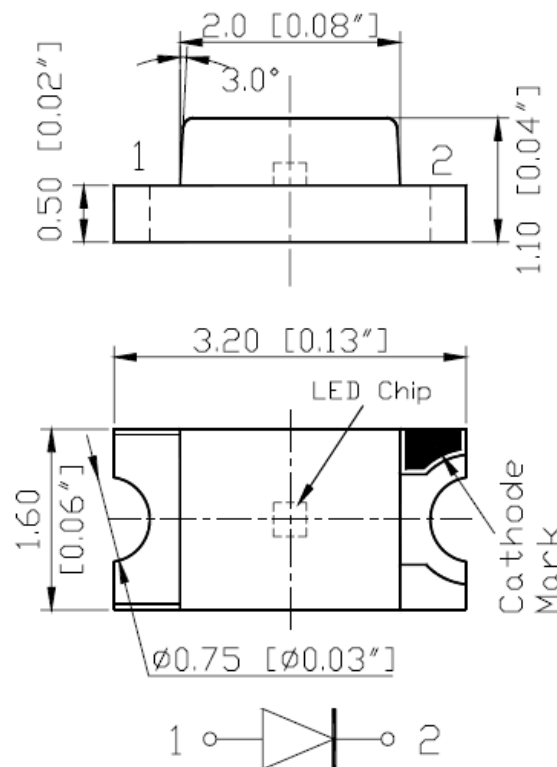
This top mount bright 1206 LEDs have a height profile of 1.1mm, which is ideal in any kind of back lighting application. Also, it is a light weight model that is good for miniature products..

**Application:**

- Automotive dashboard lighting and button lighting
- Telecommunication and storage Back lighting
- Flat panel display back lighting

**Certification & Compliance:**

- TS16949
- ISO9001
- RoHS Compliant


**Dimension:**


Units: mm / tolerance = +/-0.1mm

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**Electrical / Optical Characteristic:**

(T=25 °C)

Product	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ(nm)			I <sub>V</sub> (mcd)	
			Typ.	Max.	Min.	Max	Δλ	Min.	Typ.
QBLP650-IB	Blue	20	3.3	3.7	465	475	30	25	45
QBLP650-IG	Green	20	3.3	3.7	520	530	30	250	400
QBLP650-IW	White	20	3.3	3.7	X=0.29 Y=0.30	-	-	160	250
QBLP650-R	Red	20	2.0	2.4	620	630	25	80	110
QBLP650-AG	Yellow Green	20	2.0	2.4	565	575	20	20	45
QBLP650-Y	Yellow	20	2.0	2.4	585	595	20	63	125
QBLP650-O	Orange	20	2.0	2.4	601	611	20	125	180

**Absolute Maximum Rating:**

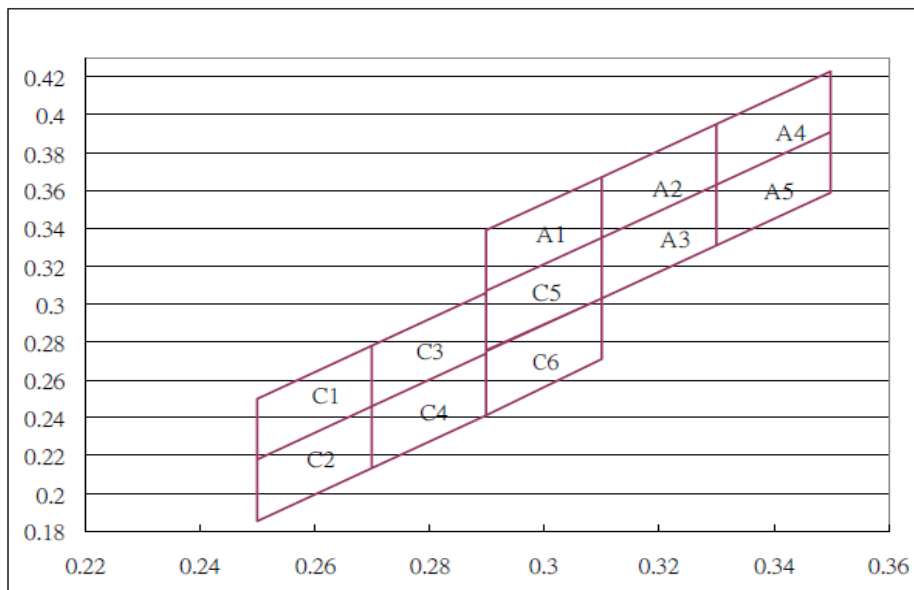
Emit Color	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (mA)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SOL</sub> (°C)**
IB/IG/IW	120	30	100	5	-40 ~ +85	-40 ~ +90	260
R/AG/Y/O	75	30	60	5	-40 ~ +85	-40 ~ +90	260

\*Duty 1/10 @ 1KHz

\*\* IR Reflow for no more than 10 sec @ 260 °C

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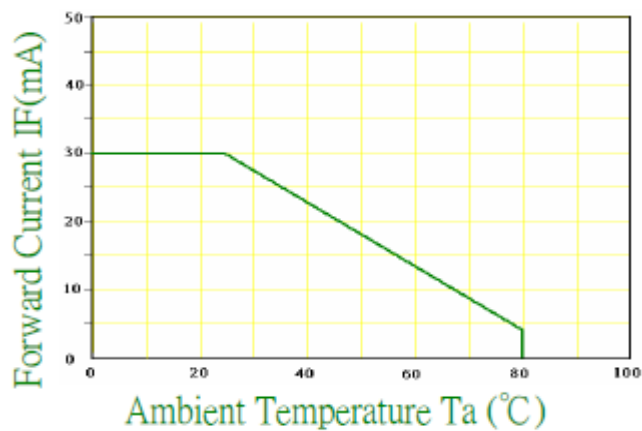
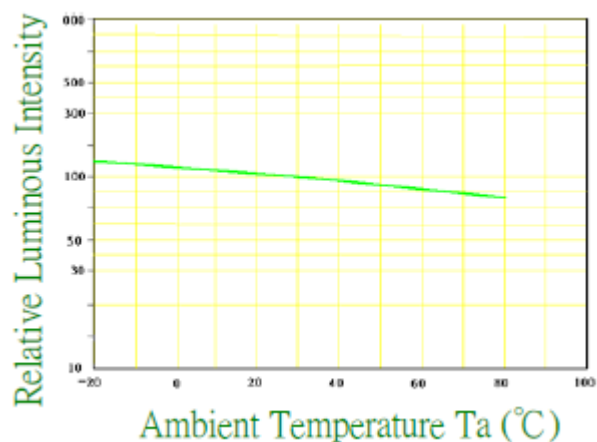
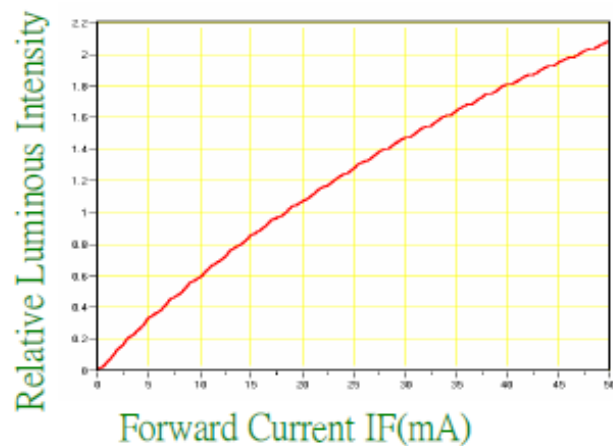
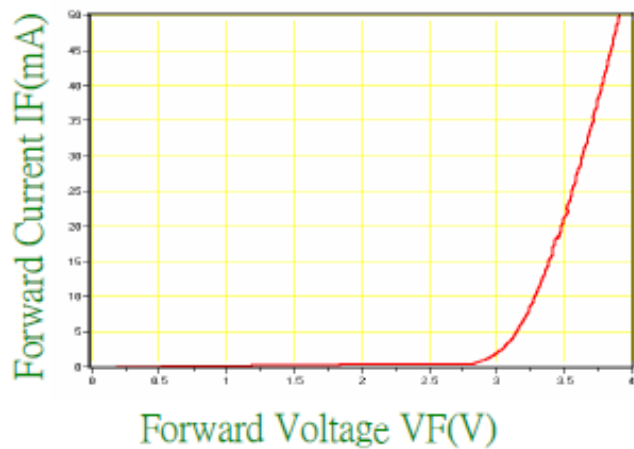
## CIE Chromaticity Table:



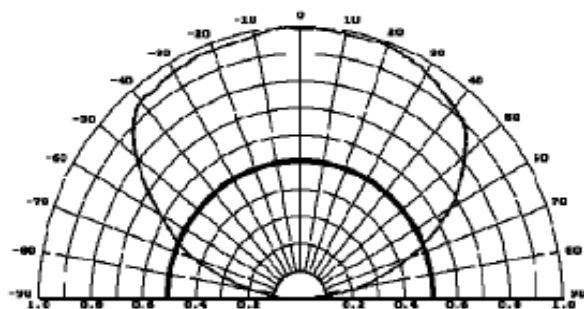
A1	X	0.29	0.29	0.31	0.31	0.29
	Y	0.339	0.307	0.335	0.367	0.339
A2	X	0.31	0.31	0.33	0.33	0.31
	Y	0.367	0.335	0.363	0.395	0.367
A3	X	0.31	0.31	0.33	0.33	0.31
	Y	0.335	0.303	0.331	0.363	0.335
C5	X	0.29	0.29	0.31	0.31	0.29
	Y	0.307	0.275	0.303	0.335	0.307
A4	X	0.33	0.33	0.35	0.35	0.33
	Y	0.395	0.363	0.391	0.423	0.395
A5	X	0.33	0.33	0.35	0.35	0.33
	Y	0.363	0.331	0.359	0.391	0.363
C1	X	0.27	0.25	0.25	0.27	0.27
	Y	0.278	0.25	0.218	0.246	0.278
C2	X	0.27	0.25	0.25	0.27	0.27
	Y	0.246	0.218	0.185	0.213	0.246
C3	X	0.29	0.27	0.27	0.29	0.29
	Y	0.306	0.278	0.246	0.274	0.306
C4	X	0.29	0.27	0.27	0.29	0.29
	Y	0.274	0.246	0.213	0.241	0.274
C6	X	0.31	0.29	0.29	0.31	0.31
	Y	0.303	0.2756	0.241	0.271	0.303

## Characteristic Curves:

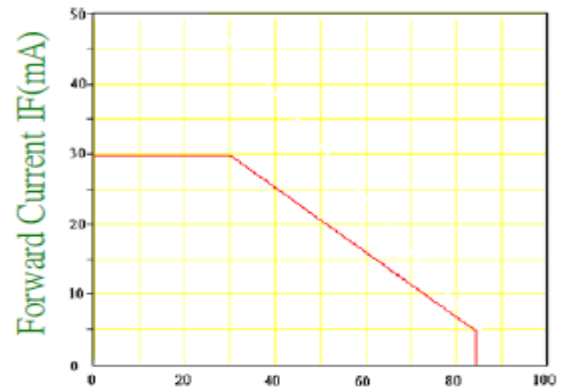
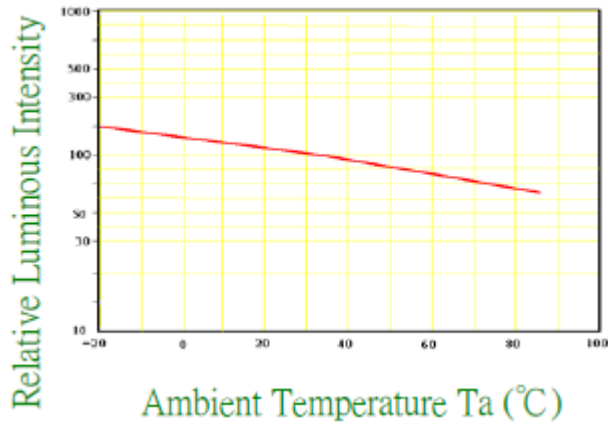
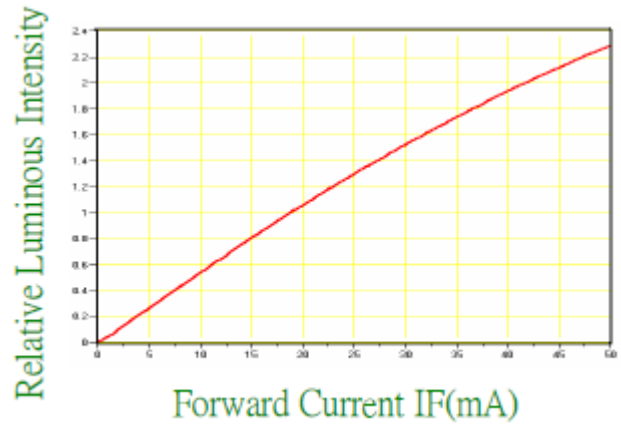
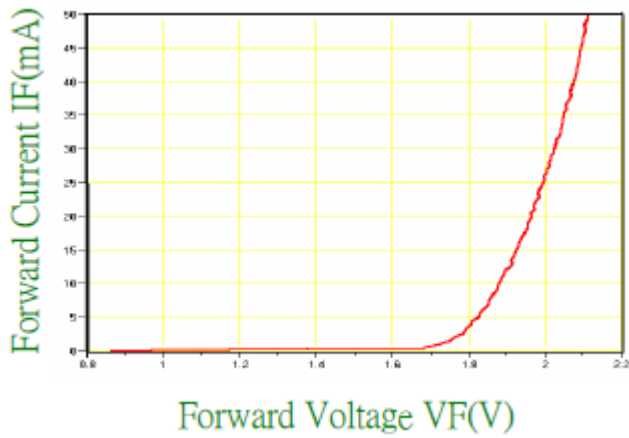
### InGaN Technology (IB/IG/IW)



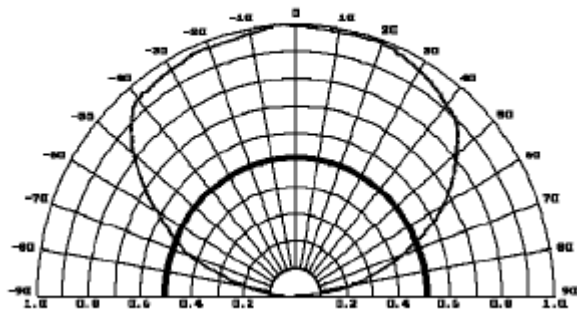
### Directive Characteristics



**AllnGaP Technology (R/AG/Y/O)**

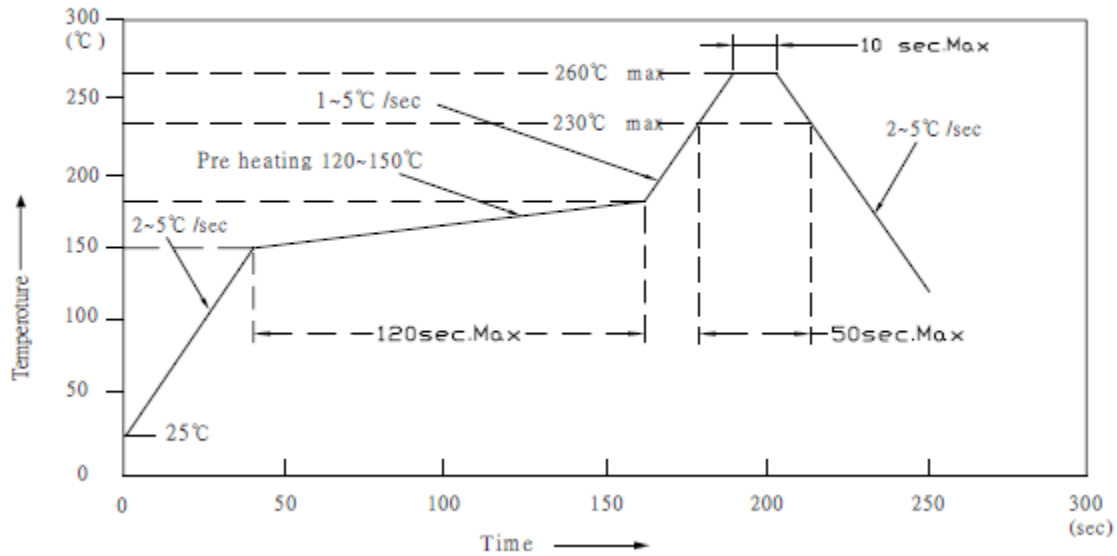


**Directive Characteristics**

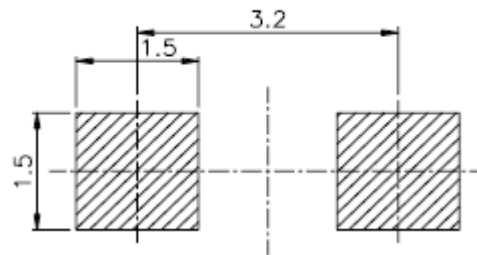


**Solder Profile & Footprint:**

**IR Reflow Soldering Profile  
Lead Free Solder**



For reflow soldering (propose)



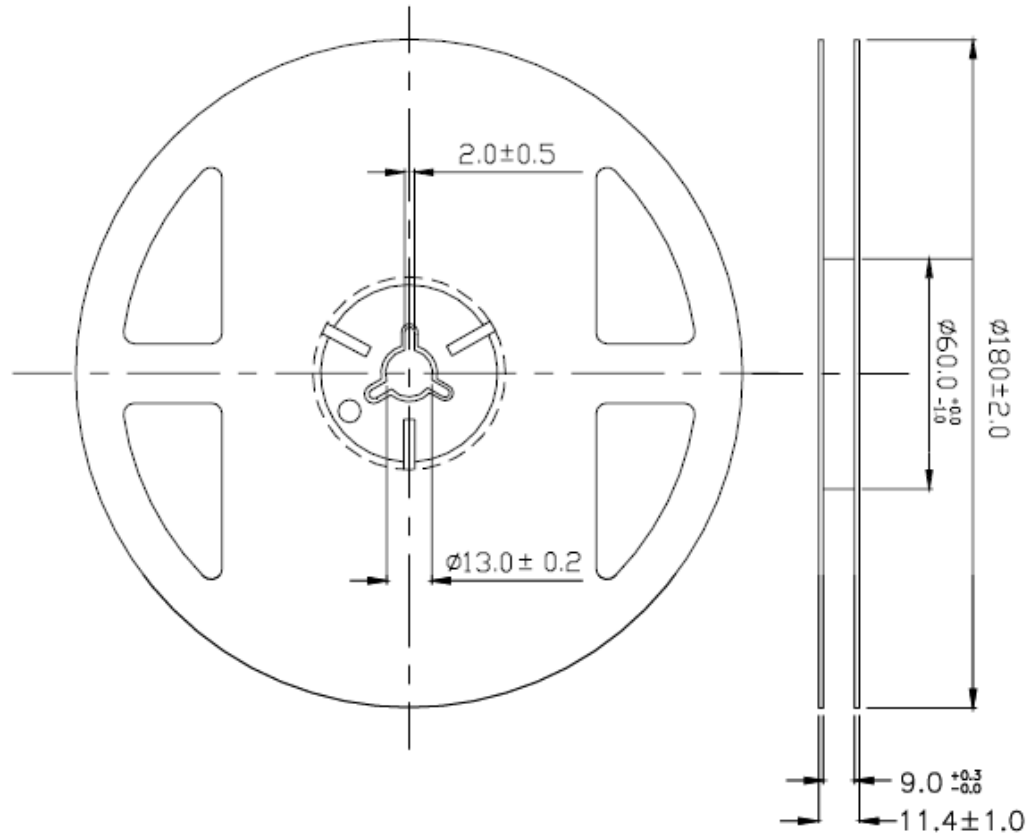
( Proposed Solder footprint )

Units: mm

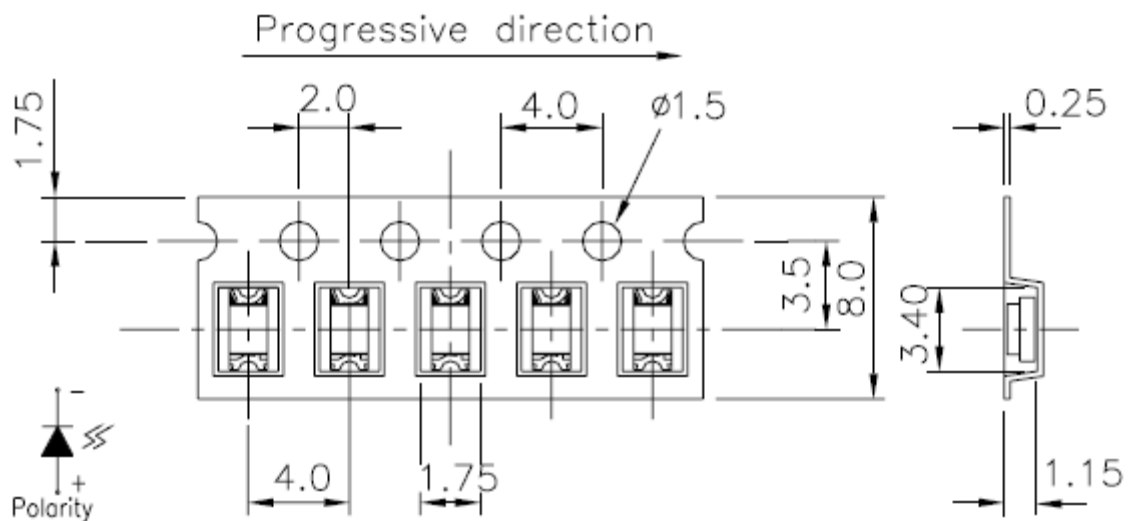
tolerance: +/- 0.1mm

**Packing method:**

**Reel Dimension:**

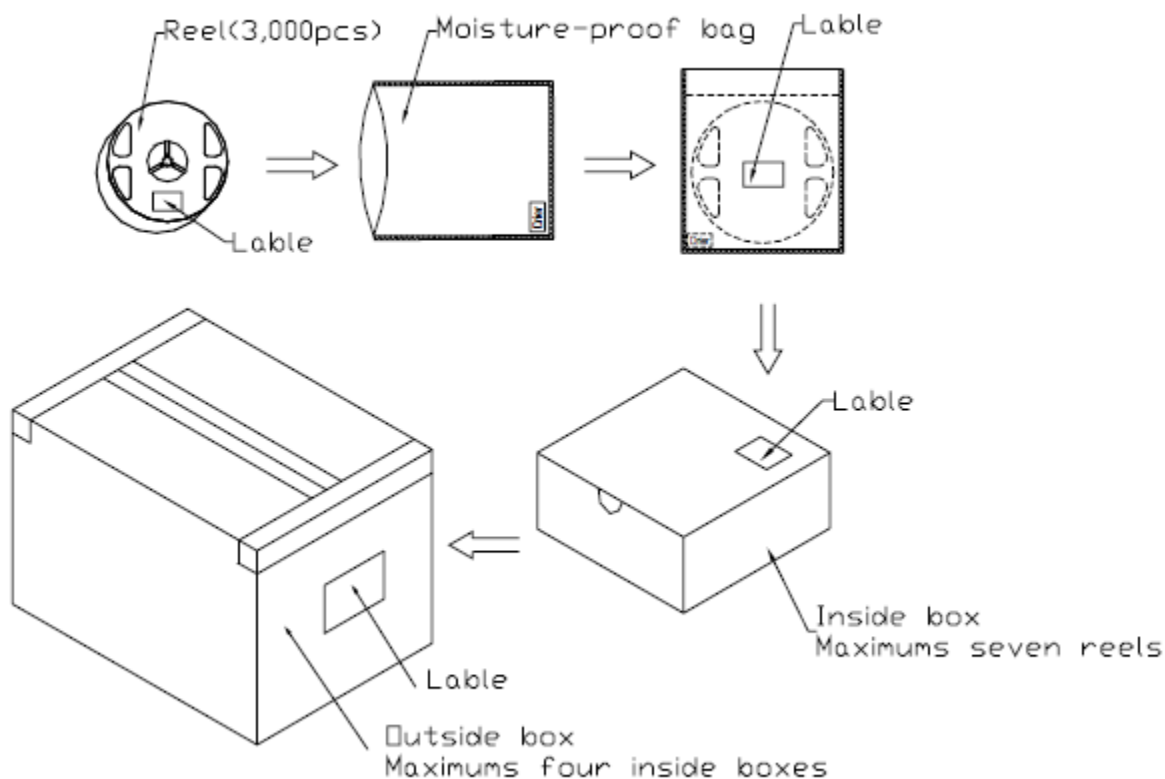


**Tape Dimension:**



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## Labeling:



## Revision History

Description:	Revision #	Revision Date
New Release of QBLP650_series	V1.0	09/20/2010
Update Information	V1.1	03/20/2011
Update brightness and CCT range	V2.1	05/06/2011
Update Brightness	V2.2	06/15/2011

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