

**Harvatek Surface Mount Chip LED Data Sheet
HT-D1711BP**

Official Product	Product: HT-D1711BP		Data Sheet No.
Tentative Product	*****		HT-D1711BP Series
Specifications are subject to change without notice. Data and drawings herein are copyrighted.	June 19, 2013	Version of 1.0	Page 1/14

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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.

2. A critical component in 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.

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Product Specifications

	Specification	Material	Quantity
Iv	120lm typ. @500mA / Ta=25° C, ± 10%		
XY	Refer to page 6&7 for bin range. @500mA / Ta=25° C, ± 0.07		
Vf	3.7V max @500mA / Ta=25°C, ± 0.05 V		
Ir	HT standard		
Carrier tape	Per EIA 481-1A specs	Conductive black tape	1000pcs per reel
Reel	Per EIA 481-1A specs	Conductive black	
Label	HT standard	Paper	
Packing bag	220x240mm	Aluminum laminated bag/ no-zipper	One reel per bag
Carton	HT standard	Paper	

Others:

Each immediate box consists of 5 reels. The 5 reels may not necessarily have the same lot number or the same bin combinations of Iv, λD and Vf. Each reel has a label identifying its specification; the immediate box consists of a product label as well.

ATTENTION: Electrostatic Discharge (ESD) protection




The symbol to the left denotes that ESD precaution is needed. ESD protection for GaP and AlGaAs based chips is necessary even though they are relatively safe in the presence of low static-electric discharge. Parts built with AlInGaP, GaN, or/and InGaN based chips are **STATIC SENSITIVE devices**. ESD precaution must be taken during design and assembly.

If manual work or processing is needed, please ensure the device is adequately protected from ESD during the process.

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Label Specifications

HARVATEK TECHNOLOGIES		Date: yyyy/mm/dd
CUSTOMER P/N: 		
HARVATEK P/N: 	QTY: PCS 	
LOT NO: 	QC	
IV BIN: COLOR BIN: VF:		

■ **Harvatek P/N:**

H T - D 1 7 1 1 B P - Y Y Y Y

Series Name	Emitting Color	Customer Code
HT-D1711 HT: Harvatek D1711: 2.0 (L) x 1.6 (W) x 0.8 (H) mm	BP: White	YYYY Customer Product Code (TBD)

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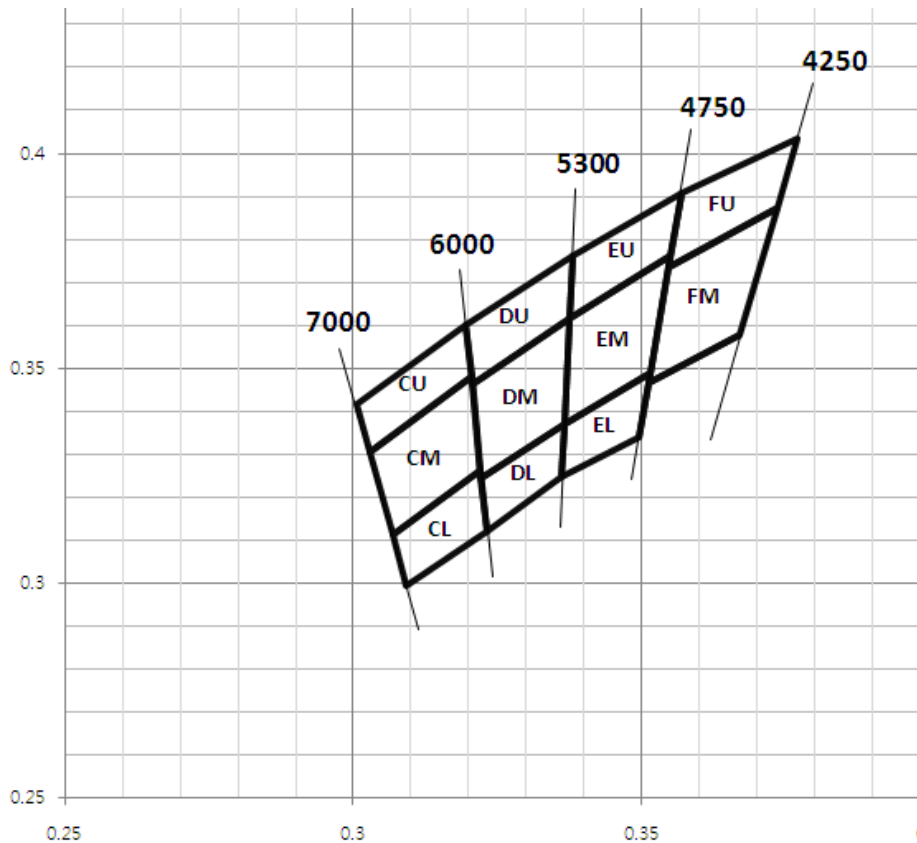
Lot No.:

1	2	3	4	5	6	7	8	9	10
E	1	A	1	A	2	2	L	1	2
Code 1 2		Code 3	Code 4	Code 5	Code 6	Code 7	Code 8	Code 9	Code 10
		Mfg. Year	Mfg. Month	Mfg. Date	Consecutive number		Special code		
Internal Tracing Code		2010-A 2011-B 2012-C 2013-D . .	1:Jan. 2:Feb. ... A:Oct. B:Nov. C:Dec.	1:A	01~ZZ				000~ZZZ
				2:B					
				3:C					
				...					
				26:Z					
				27:7					
				28:8					
				29:9					
				30:3					
				31:4					

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■ **Chromaticity Bin:**

Bin Code	Min.	Typ.	Max.	Unit	Condition
FM	4250	4500	4750	K	IF=500mA
EU	4750	5025	5300		
EM	4750	5025	5300		
EL	4750	5025	5300		
DU	5300	5650	6000		
DM	5300	5650	6000		
DL	5300	5650	6000		



@500mA / Ta=25°C, Tolerance: ± 0.01

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Product Characteristics

Absolute Maximum Ratings

Product	Emission Color	P _d (W)	I _F (mA)	I _{FP} * (mA)	T _{sol} (°C)	T _{OP} (°C)	T _{ST} (°C)
HT-D1711BP	White	6	500	1500	260	-40°C~+85°C	-40°C~+110°C

* Condition for I_{FP} is pulse of 1/10 duty and 0.1msec width

**Remarks: This product should be operated in forward bias. If a reverse voltage is continuously applied to the product, such operation can cause migration resulting in LED damage.

Electro-Optical Characteristics

(T_a 25 °C)

Product	Emission Color	I _F (mA)	V _F (V)		Correlated Color Temperature (CCT)			I _v (lm)
			typ	max	Min	typ	max	Typ
HT-D1711BP	White	500	3.3	3.7	4600	-	5600	120

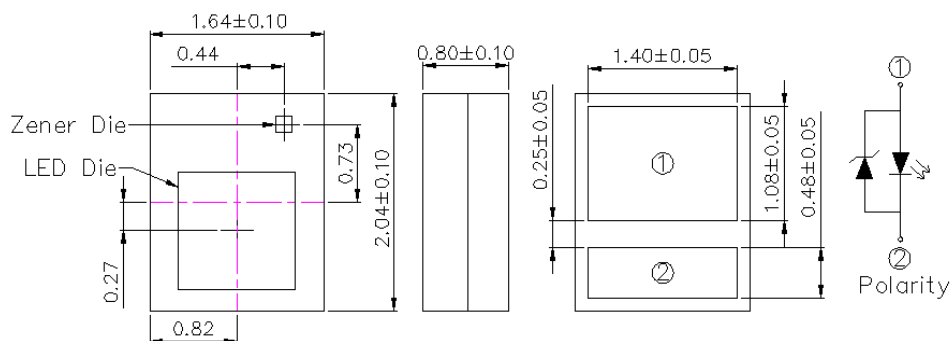
* Per NIST standards

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**Package Outline Dimension
Recommended Soldering Pattern for Reflow Soldering**

Unit: mm Tolerance: +/-0.1

Outline Dimension

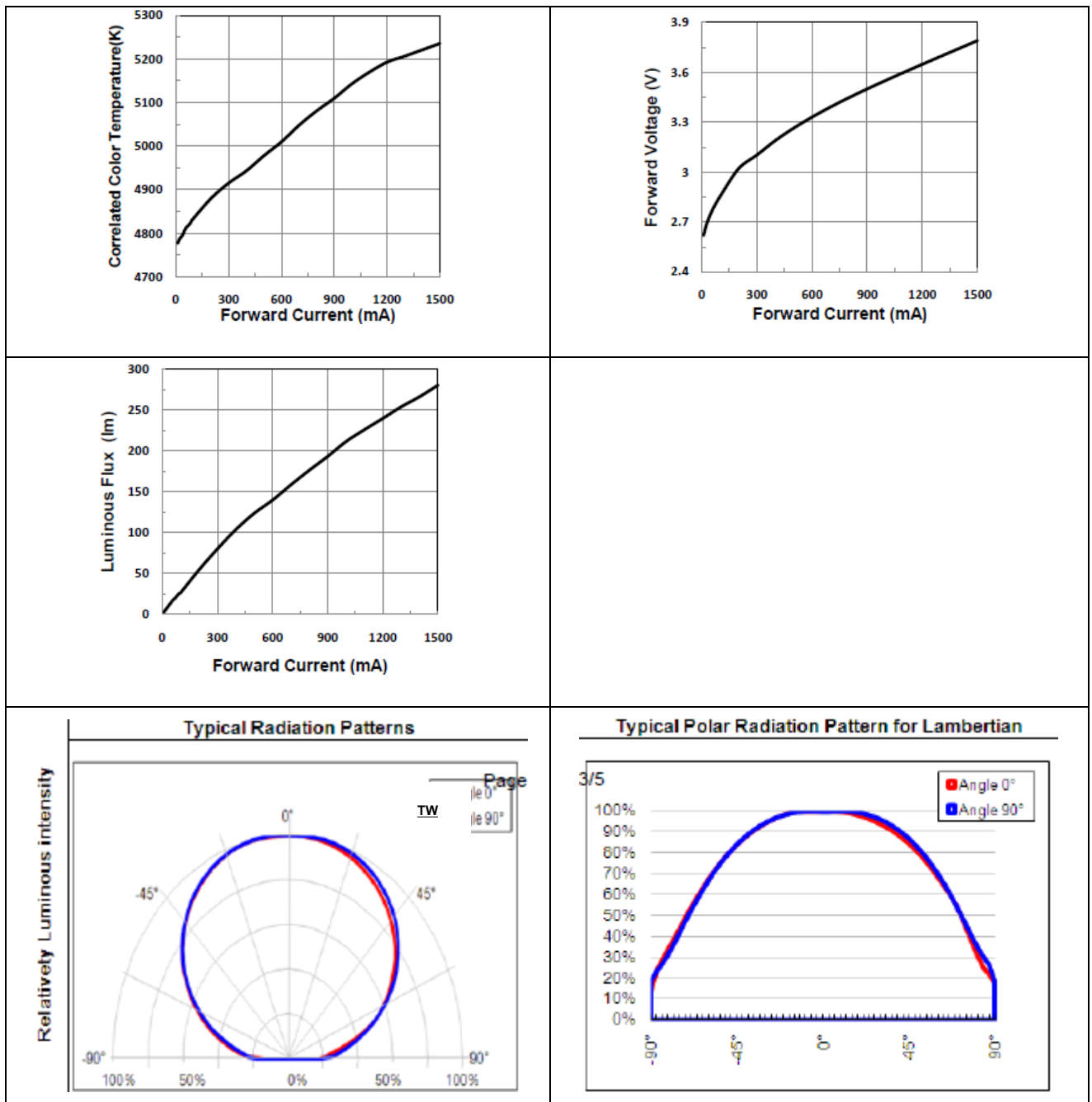


Soldering terminals may shift in the x, y direction.

Unit: mm

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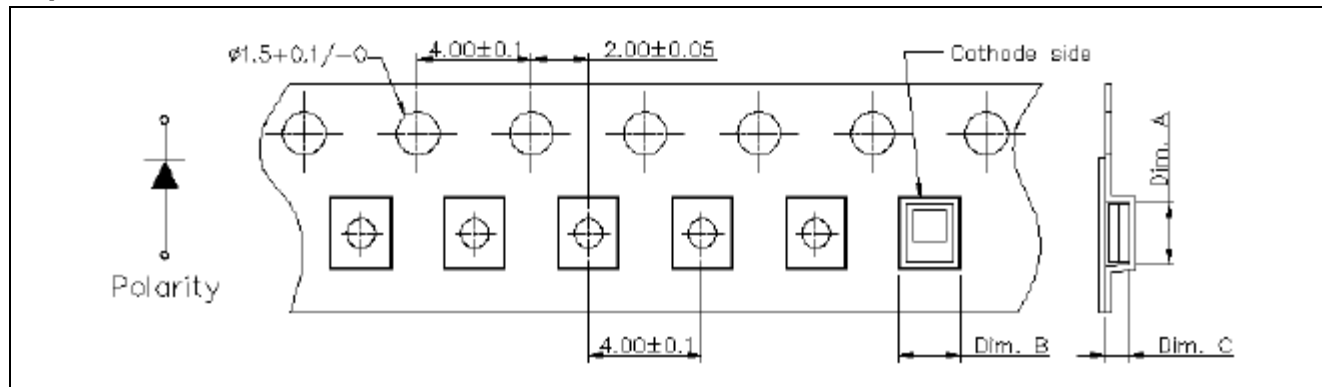
Characteristic Curves for TW



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Packaging

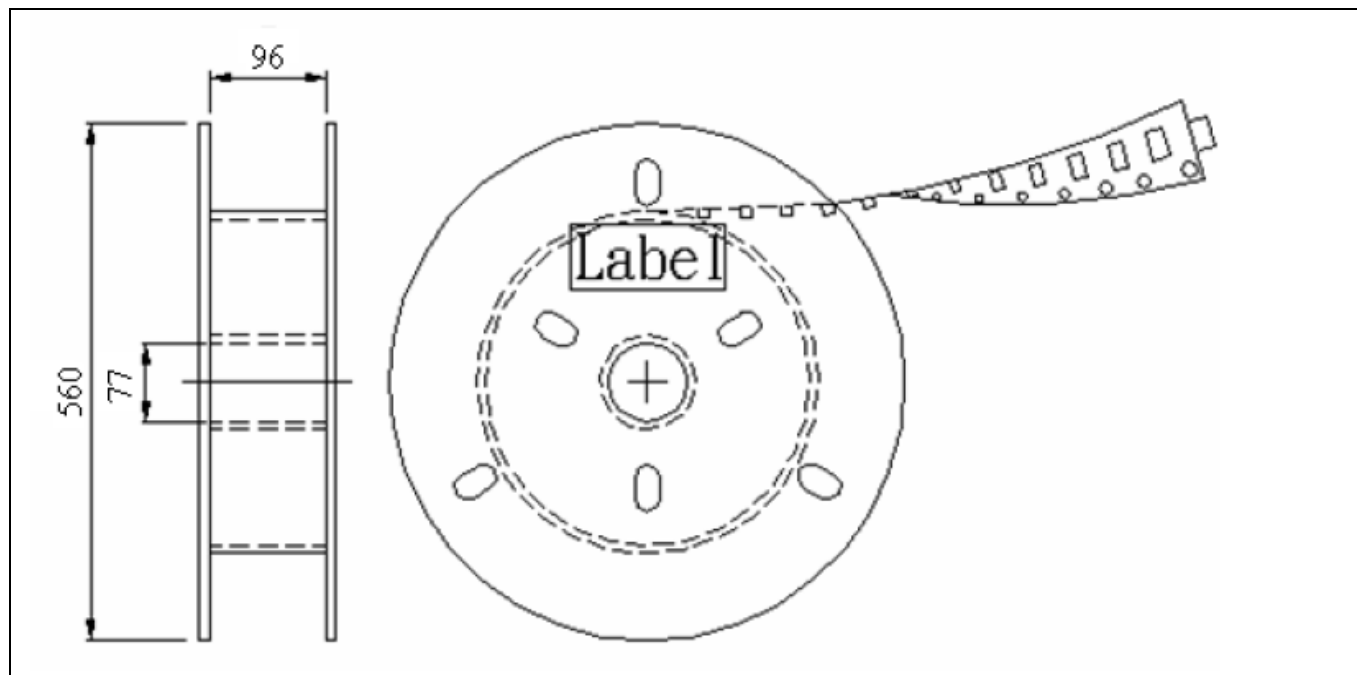
Tape Dimension



Part No.	Dim.A	Dim.B	Dim.C	Q'ty/Reel
HT-D1711	2.28+/-0.05	1.85+/-0.05	0.95+/-0.05	1K

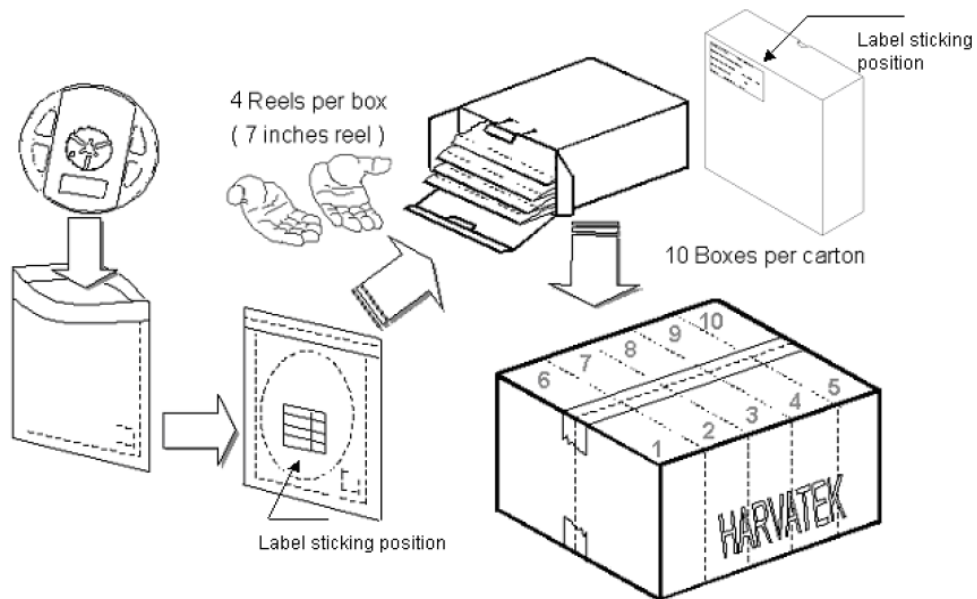
Unit: mm

Reel Dimension



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Packing

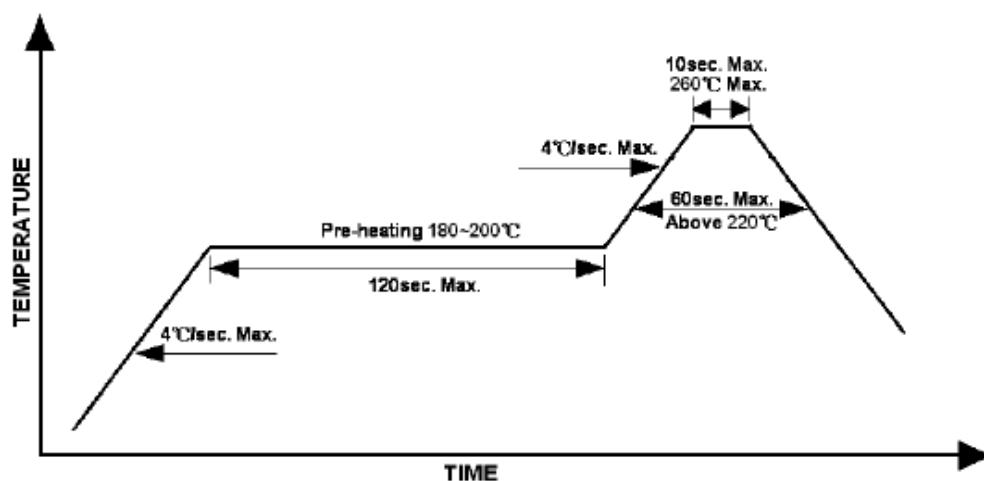


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Reflow Soldering

- Recommended tin glue specifications: melting temperature in the range of 180~200°C.
- Maximum number of times of reflow is 3.
- The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):

Lead-free Solder Profile



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Revision History

Changes since last revision	Page	Version No.	Revision Date
Initial release		1.0	06-23-2013

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