

SURFACE MOUNT CHIP LED LAMP SPECIFICATION

● COMMODITY : SURFACE MOUNT CHIP LED LAMP

● DEVICE NUMBER : **BL-HE1G033B**

VERSION : 1.3 / 2000.12.22

● ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta=25°C)

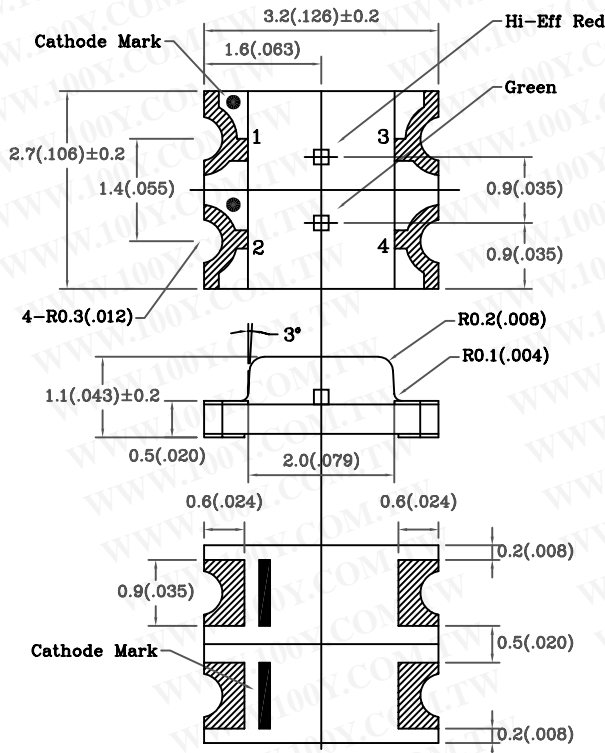
Chip		Lens Appearance	Absolute Maximum Rating				Electro-optical Data (At 20mA)				Viewing Angle 2θ 1/2 (deg)
Emitted Color	Peak Wave Length λ P(nm)		Δλ (nm)	Pd (mW)	If (mA)	Peak If(mA)	Vf(V)		Iv Typ. (mcd)		
							Typ.	Max.	Min	Typ.	
Hi-Eff Red	635	Water Clear	45	80	30	150	2.0	2.6	4.0	12.0	120
Green	568		30	80	30	150	2.2	2.6	4.5	14.0	

Remark : Viewing angle is the Off-axis angle at which the luminous intensity is half the axial luminous intensity.

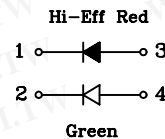
● ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Reverse Voltage	5V
Reverse Current (VR=5V)	≤ 100μA
Operating Temperature Range	-25°C ~ 80°C
Storage Temperature Range	-30°C ~ 85°C

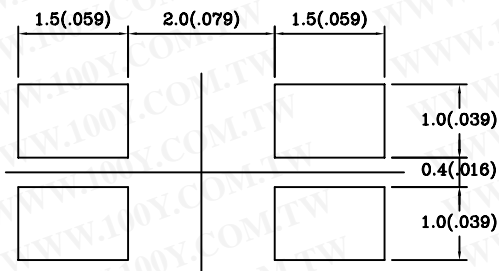
● PACKAGE DIMENSIONS



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-54151736
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



For reflow soldering



- NOTES: 1.All dimensions are in millimeters (inches).
 2.Tolerance is ± 0.10mm (0.004) unless otherwise specified.
 3.Specifications are subject to change without notice.
 4.Condition for IFp is pulse of 1/10 duty and 0.1msec width.

SURFACE MOUNT CHIP LED LAMP SPECIFICATION

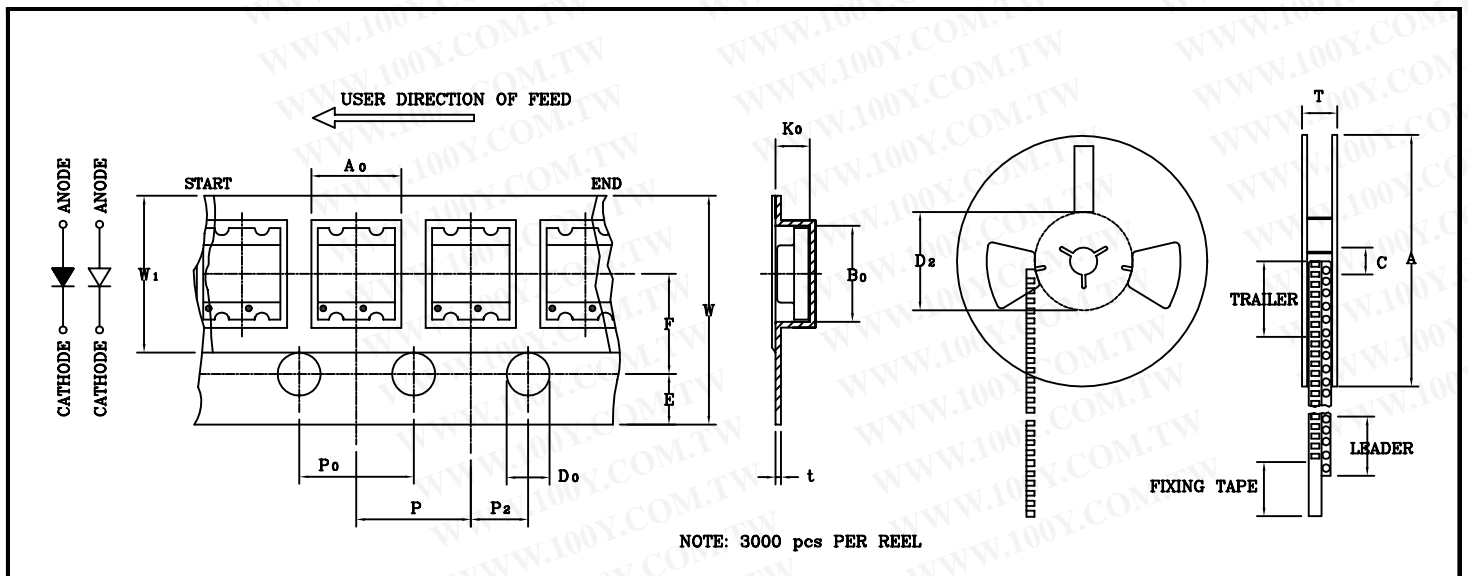
●COMMODITY : SURFACE MOUNT CHIP LED LAMP

●DEVICE NUMBER : BL-HE1G033B-TR

VERSION : 1.1 / 2000/08/02

●TAPPING AND PACKAGING SPECIFICATION

ITEM	SYMBOL	SPECIFICATION			
		Minimum		Maximum	
		mm	inch	mm	inch
Tape Feed Hole Diameter (DIA)	D_0	1.40	0.055	1.60	0.063
Feed Hole Location	E	1.65	0.064	1.85	0.073
Centers Line Dimensions Length Direction	F	3.45	0.135	3.55	0.139
Compartment Depth	K_0	1.30	0.051	1.35	0.053
Compartment Pitch	P	3.90	0.153	4.10	0.161
Sprocket Hole Diameter	P_0	3.90	0.153	4.10	0.161
Centers Line Dimensions Length Direction	P_2	1.95	0.076	2.05	0.080
Carrier Tape Thickness	t	—	—	0.30	0.012
Carrier Tape Width	W	7.70	0.303	8.30	0.326
Flange Diameter	A	178.0	7.008	180.0	7.087
Hub Spindle Hole	C	12.50	0.492	13.50	0.531
Hub Diameter	D_2	70.00	2.755	72.00	2.830
Fixing Tape Width	W_1	5.25	0.206	5.35	0.210
Flange Space Between Flanges	T	12.50	0.492	13.50	0.531
Compartment Length	A_0	2.75	0.108	2.85	0.112
Compartment Width	B_0	3.75	0.147	3.85	0.151

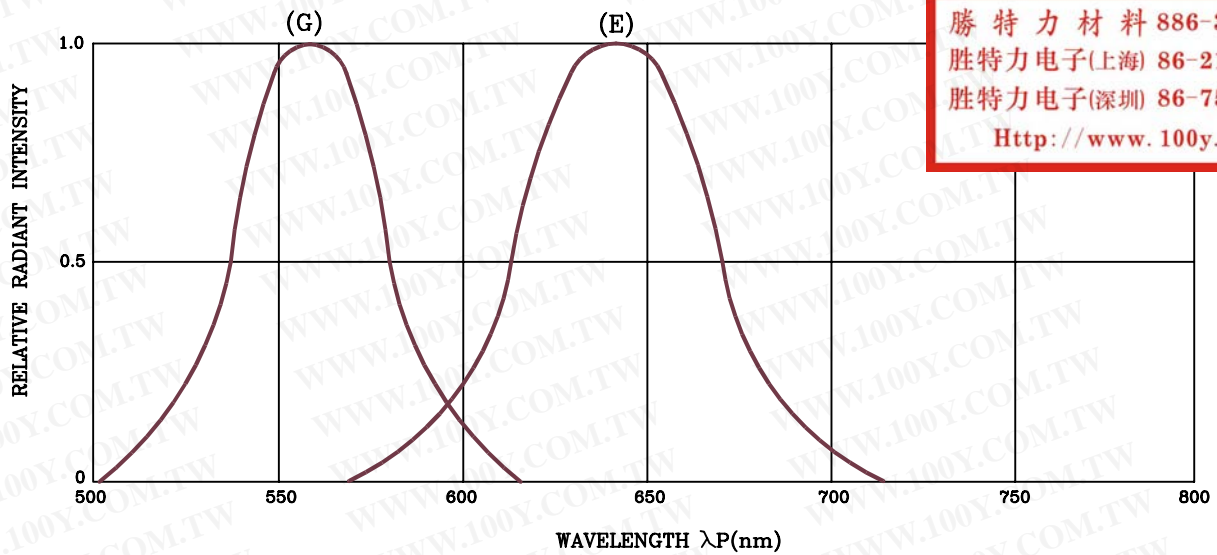


TYPICAL CHARACTERISTICS

DEVICE NUMBER: BL-HE1G033B

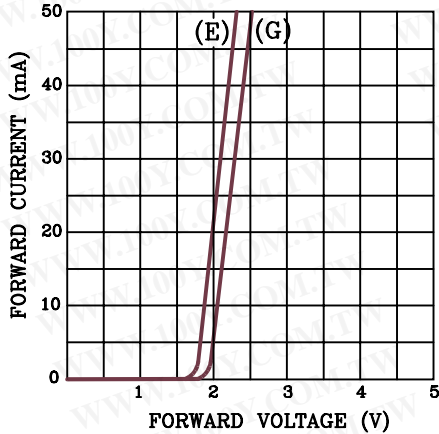
VERSION:1.3/2001.03.05

SPECTRAL DISTRIBUTION

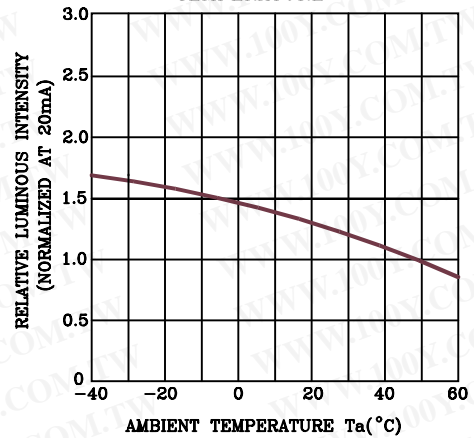


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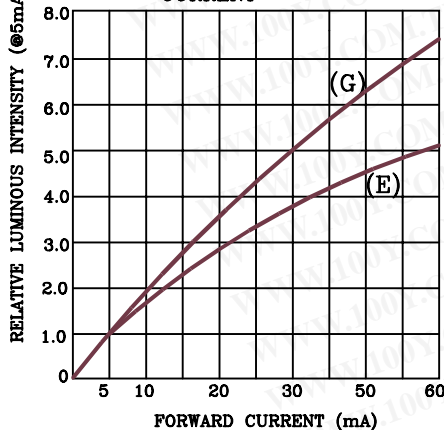
FORWARD CURRENT VS. FORWARD VOLTAGE



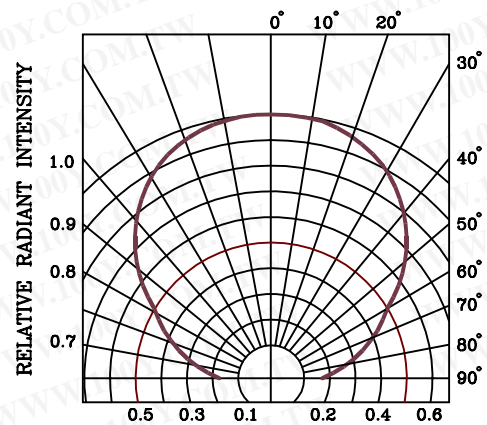
RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE



RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT



RADIATION DIAGRAM



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RELIABILITY TEST

DEVICE NO.: BL-HE1G033B

VERSION: 1.2 / 2000.09.30

Classification	Test Item	Reference Standard	Test Conditions	Result
Endurance Test	Operation Life	MIL-STD-750:1026 MIL-STD-883:1005 JIS C 7021 :B-1	Connect with a power If=20mA Ta=Under room temperature Test time=1,000hrs	0/20
	High Temperature High Humidity Storage	MIL-STD-202:103B JIS C 7021 :B-11	Ta=+65°C±5°C RH=90%-95% Test time=1,000hrs	0/20
	High Temperature Storage	MIL-STD-883:1008 JIS C 7021 :B-10	High Ta=+85°C±5°C Test time=1,000hrs	0/20
	Low Temperature Storage	JIS-C-7021 :B-12	Low Ta=-35°C±5°C Test time=1,000hrs	0/20
Environmental Test	Temperature Cycling	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1010 JIS C 7021 :A-4	-35°C ~ +25°C ~ +85°C ~ +25°C 60min 20min 60min 20min Test Time=5cycle	0/20
	Thermal Shock	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011	+85°C±5°C ~ -35°C±5°C 20min 20min Test Time=10cycle	0/20
	Solder Resistance	MIL-STD-202:201A MIL-STD-750:2031 JIS C 7021 :A-1	Preheating : 140°C-160°C,within 2 minutes. Operation heating : 235°C (Max.),within 10 seconds.(Max.)	0/20

JUDGMENT CRITERIA OF FAILURE FOR THE RELIABILITY

Measuring items	Symbol	Measuring conditions	Judgement criteria for failure
F0rward voltage	VF (V)	IF=20mA	Over Ux1.2
Reverse current	IR(uA)	VR=5V	Over Ux2
Liminous intensity	IV (mcd)	IF=20mA	Below SX0.5

Note: 1.U means the upper limit of specifide characteristics. S means initial value.

2.Measurment shall be taken between 2 hours and after the test pieces have been returned to normal ambient conditions after completion of each test.