

SURFACE MOUNT CHIP LED LAMP SPECIFICATION

●COMMODITY : SURFACE MOUNT CHIP LED LAMP

●DEVICE NUMBER : BL-HKC33

PAGE: 2

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

REVISION: 1.0

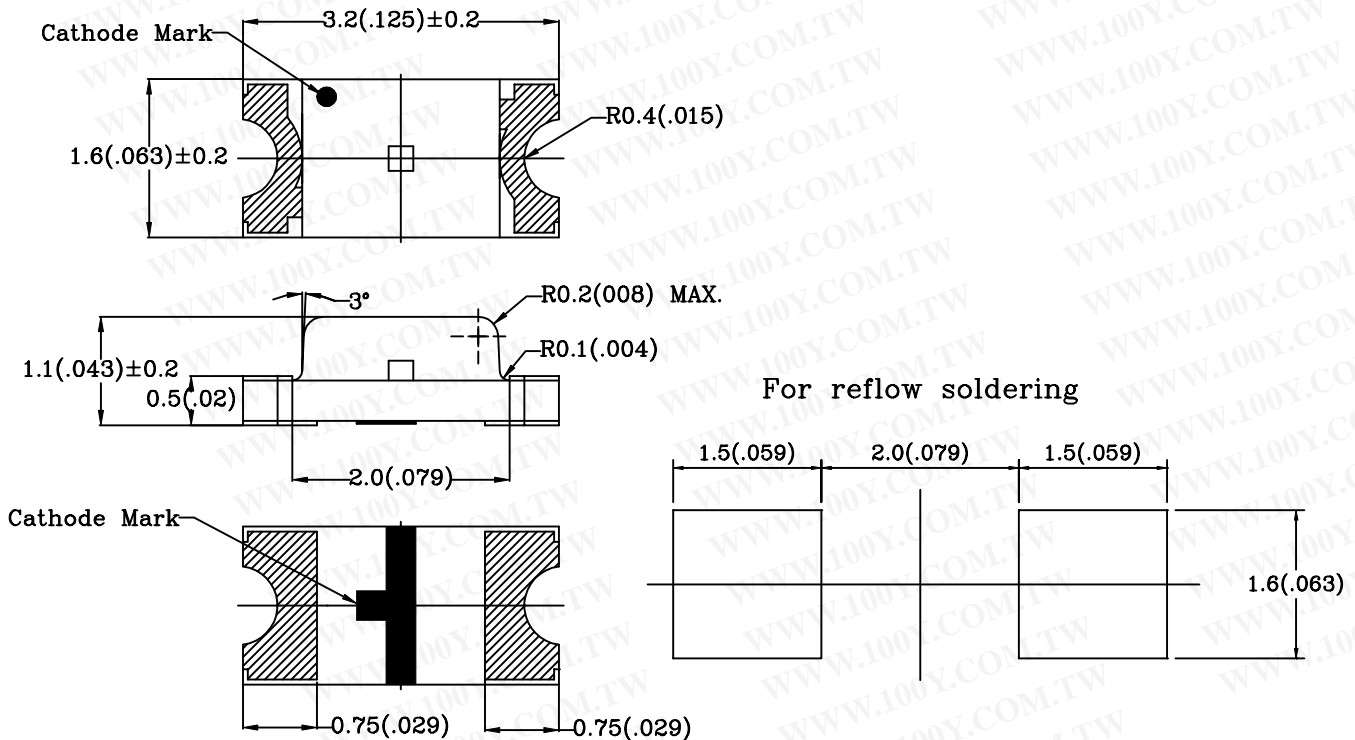
Chip			Lens Appearance	Absolute Maximum Rating				Electro-optical Data (At 20mA)				Viewing Angle 2θ 1/2 (deg)
Emitted Color	Peak Wave Length λ p(nm)	Dominant Wave Length λ d(nm)		Δ λ (nm)	Pd (mW)	If (mA)	Peak If(mA)	Vf(V)		Iv(mcd)		
								Typ.	Max.	Min	Typ.	
Super Yellow	590	587±5	Water Clear	15	100	30	100	2.0	2.6	63.0	120.0	120

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



- 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-HKC33

PAGE: 3
 REVISION: 1.0

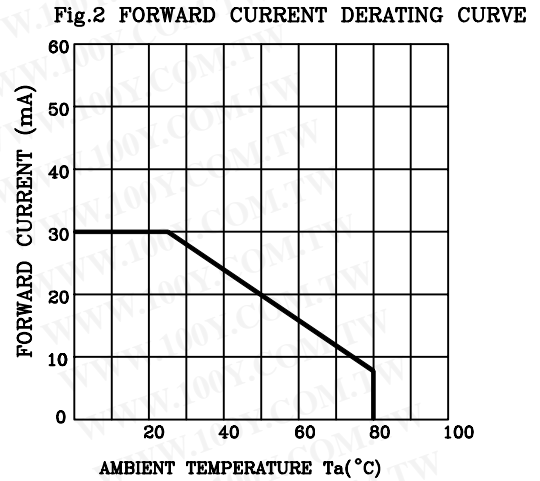
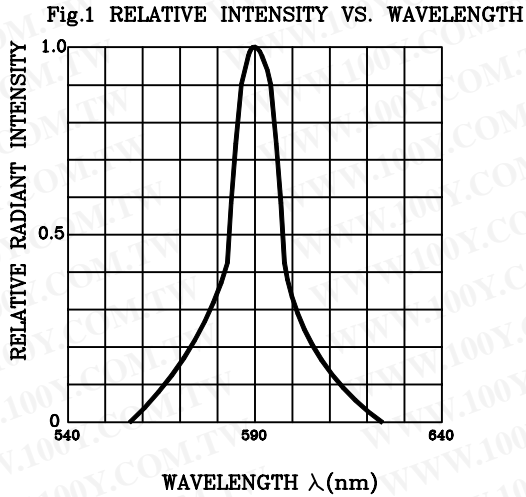


Fig.3 FORWARD CURRENT VS. FORWARD VOLTAGE

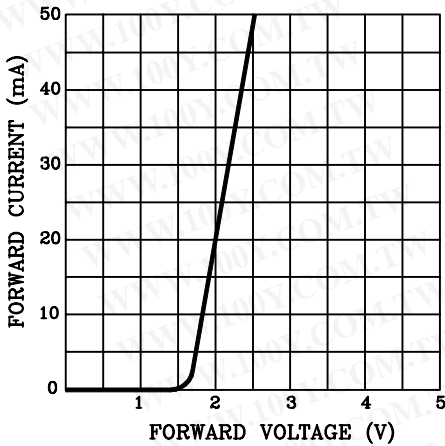


Fig.4 RELATIVE LUMINOUS INTENSITY VS. AMBIENT TEMPERATURE

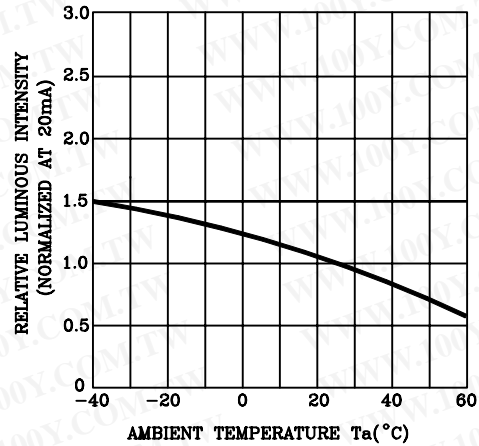


Fig.5 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

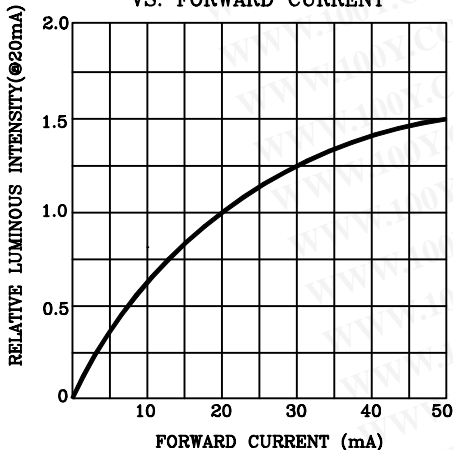
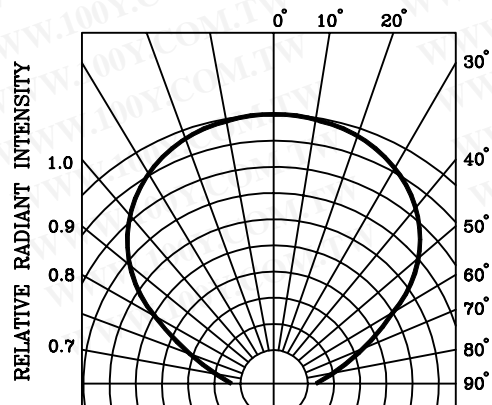


Fig.6 RADIATION DIAGRAM



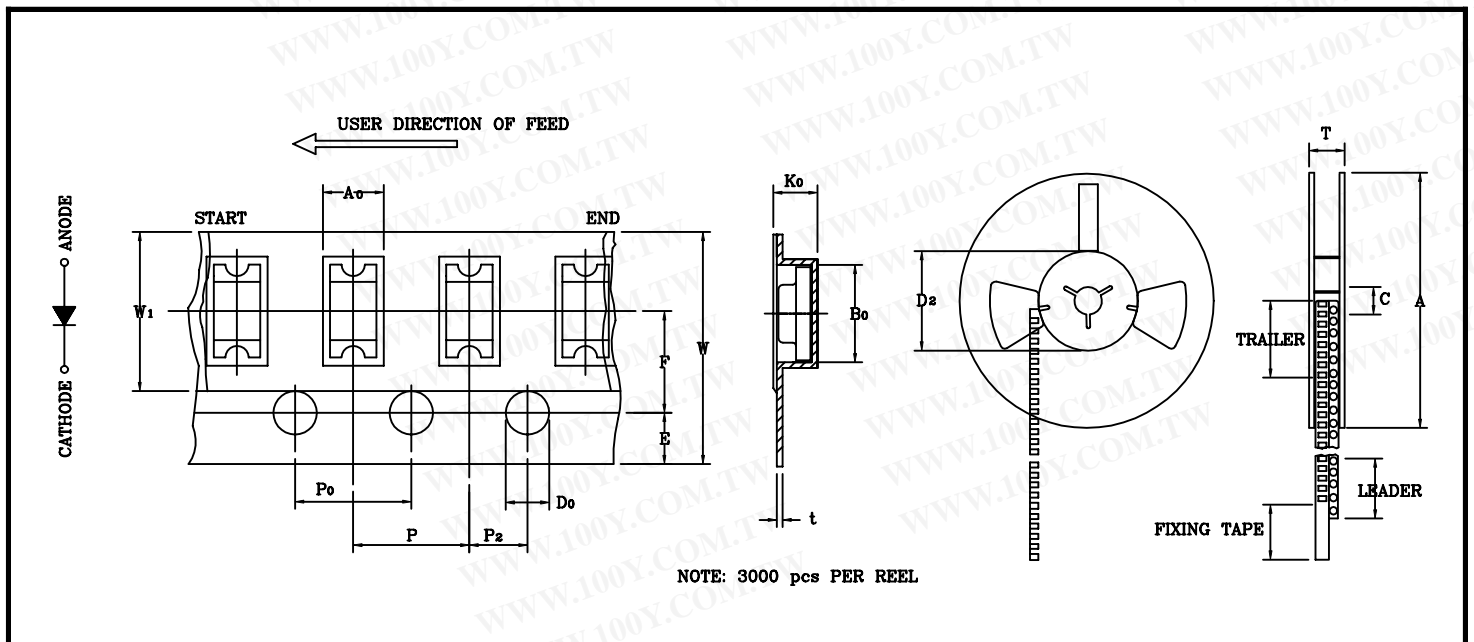
SURFACE MOUNT CHIP LED LAMP SPECIFICATION

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

- COMMODITY : SURFACE MOUNT CHIP LED LAMP
- DEVICE NUMBER : BL-HKC33-TRB
- -TRB: TAPPING & REELING, BLACK CAMRIER TAPE, ESD RESISTED.
- TAPPING AND PACKAGING SPECIFICATION

PAGE: 4
 REVISION: 1.0

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	1.17	0.046	1.37	0.054
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	1.78	0.070	1.98	0.078
Compartment Width	B_0	3.40	0.134	3.60	0.142



SURFACE MOUNT CHIP LED LAMP SPECIFICATION

RELIABILITY TEST

PAGE: 5

REVISION: 1.0

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 $I_f=20\text{mA}$ T_a =Under room temperature Test time=1,000hrs	0/20
	High Temperature High Humidity Storage	MIL-STD-202:103B JIS C 7021 :B-11	$T_a=+65^\circ\text{C} \pm 5^\circ\text{C}$ RH=90%-95% Test time=240hrs	0/20
	High Temperature Storage	MIL-STD-883:1008 JIS C 7021 :B-10	High $T_a=+85^\circ\text{C} \pm 5^\circ\text{C}$ Test time=1,000hrs	0/20
	Low Temperature Storage	JIS-C-7021 :B-12	Low $T_a=-35^\circ\text{C} \pm 5^\circ\text{C}$ 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	$-35^\circ\text{C} \sim +25^\circ\text{C} \sim +85^\circ\text{C} \sim +25^\circ\text{C}$ 60min 20min 60min 20min Test Time=5cycle	0/20
	Thermal Shock	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011	$-35^\circ\text{C} \pm 5^\circ\text{C} \sim +85^\circ\text{C} \pm 5^\circ\text{C}$ 20min 20min Test Time=10cycle	0/20
	Solder Resistance	MIL-STD-202:201A MIL-STD-750:2031 JIS C 7021 :A-1	Preheating : $140^\circ\text{C} - 160^\circ\text{C}$, within 2 minutes. Operation heating : 235°C (Max.), within 10seconds. (Max.)	0/20

JUDGMENT CRITERIA OF FAILURE FOR THE RELIABILITY

Measuring items	Symbol	Measuring conditions	Judgement criteria for failure
Forward voltage	V_F (V)	$I_f=20\text{mA}$	Over $U_x1.2$
Reverse current	$I_r(\mu\text{A})$	$V_r=5\text{V}$	Over U_x2
Luminous intensity	I_v (mcd)	$I_f=20\text{mA}$	Below $SX0.5$

Note: 1.U means the upper limit of specified 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.