



BRIGHT LED ELECTRONICS CORP.

LED LAMPS SPECIFICATION

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REVISION: 1.0

- COMMODITY : Cylindrical 1.0" Lead 5 ϕ
- DEVICE NUMBER : BL-CA1436

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2002.06.07	1.0	1.0	1.0	1.0	1.0						Initial Released

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佰鴻工業股份有限公司

BRIGHT LED ELECTRONICS CORP.

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BRIGHT LED ELECTRONICS CORP.

LED LAMPS SPECIFICATION

●COMMODITY : Cylindrical 1.0"Lead 5 ϕ

●DEVICE NUMBER : BL-CA1436

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

VERSION : 1.0

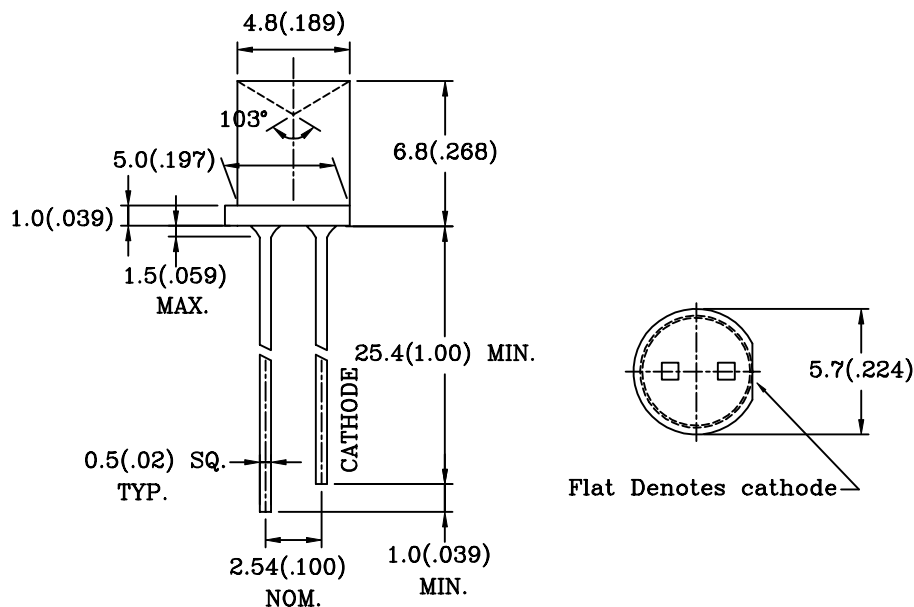
Chip		Lens Appearance	Absolute Maximum Rating				Electro-optical Data (At 20mA)			Viewing Angle 2 θ 1/2 (deg)
Emitted Color	Peak Wave Length λ P(nm)		Δ λ (nm)	Pd (mW)	If (mA)	Peak If(mA)	Vf(V)		Iv Typ. (mcd)	
							Typ.	Max.		
Amber	610	Amber Trans	35	80	30	150	2.0	2.6	12.0	120

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) 100 μ A
Operating Temperature Range -40°C ~ 80°C
Storage Temperature Range -40°C ~ 85°C
Lead Soldering Temperature 260°C For 5 Seconds

●PACKAGE DIMENSIONS



NOTES: 1.All dimensions are in millimeters (inches).

2.Tolerance is ± 0.25 mm (0.01") unless otherwise specified.

3.Lead spacing is measured where the leads emerge from the package.

4.Specifications are subject to change without notice.

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● COMMODITY: Cylindrical 1.0" Lead 5 ϕ

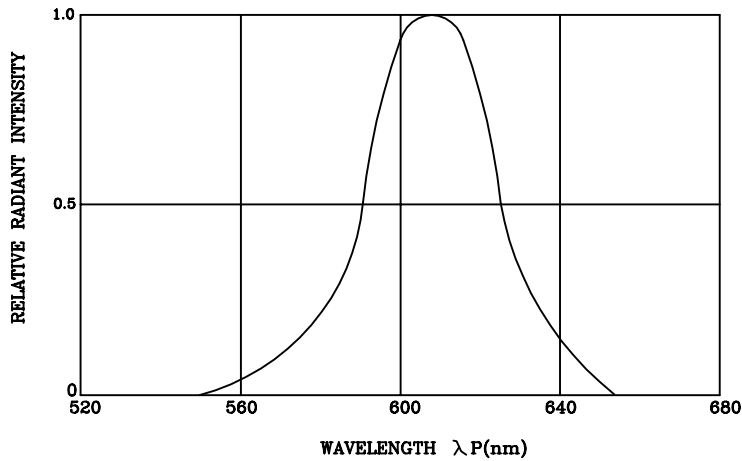
● DEVICE NUMBER: BL-CA1436

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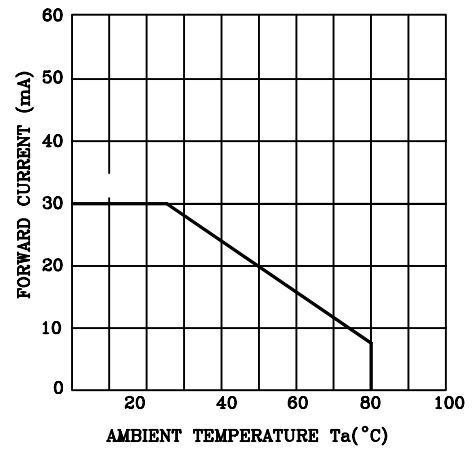
● ELECTRICAL AND OPTICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

REVISION: 1.0

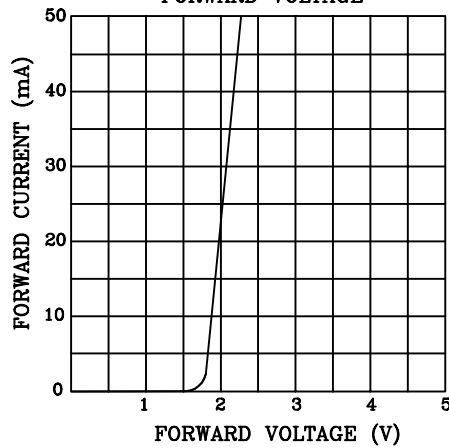
SPECTRAL DISTRIBUTION



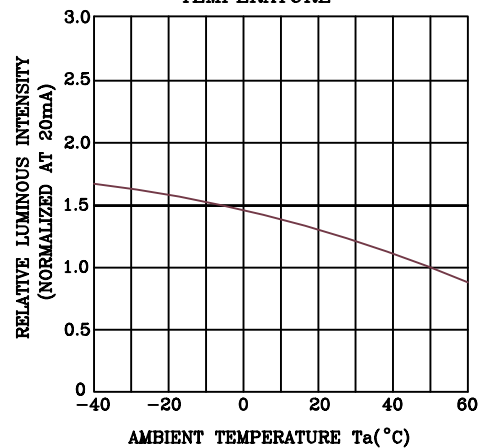
FORWARD CURRENT
DERATING CURVE



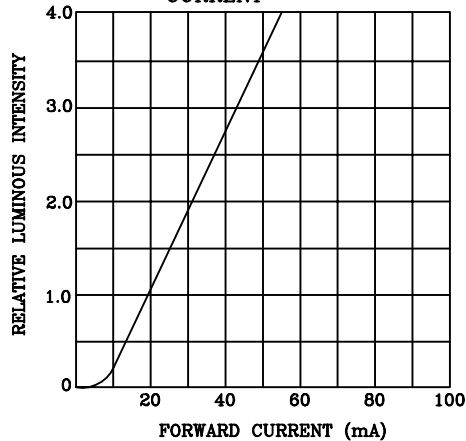
FORWARD CURRENT VS.
FORWARD VOLTAGE



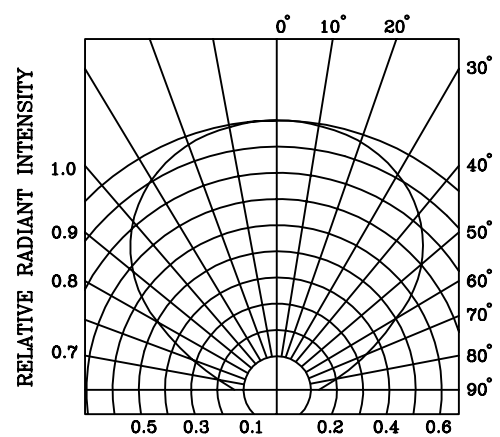
RELATIVE LUMINOUS
INTENSITY VS. AMBIENT
TEMPERATURE



RELATIVE LUMINOUS
INTENSITY VS. FORWARD
CURRENT



RADIATION DIAGRAM



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LED LAMPS SPECICATION

RELIABILITY TEST

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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	0/100
	High Temperature High Humidity Storage	MIL-STD-202:103B JIS C 7021 :B-11	Ta=85°C±5°C RH=90%-95% Test time=240hrs	0/100
	High Temperature Storage	MIL-STD-883:1008 JIS C 7021 :B-10	High Ta=105°C±5°C Test time=1,000hrs	0/100
	Low Temperature Storage	JIS-C-7021 :B-12	Low Ta=-55°C±5°C Test time=1,000hrs	0/100
Environmental Test	Temperature Cycling	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1010 JIS C 7021 :A-4	-55°C ~ 25°C ~ 105°C ~ 25°C 30min 5min 30min 5min Test Time=10cycle	0/100
	Thermal Shock	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011	-55°C±5°C ~ 105°C±5°C 10min 10min Test Time=10cycle	0/100
	Solder Resistance	MIL-STD-202:201A MIL-STD-750:2031 JIS C 7021 :A-1	T.sol=260±5°C Dwell Time=5±1sec.	0/50
	Solder ability	MIL-STD-202:208D MIL-STD-750:2026 MIL-STD-883:2003 JIS C 7021 :A-2	T.sol=230±5°C Dwell Time=5±1sec.	0/50
	Lead Bending Stress	MIL-STD-750:2036 JIS C 7021 :A-11	0°~90°~0°bend , 3 cycles Weight 250g	0/50

JUDGMENT CRITERIA OF FAILURE FOR THE RELIABILITY

Measuring items	Symbol	Measuring conditions	Judgement criteria for failure
Forward voltage	V _F	If=20mA	Over Ux1.2
Reverse current	I _r	V _r =5V	Over Ux2
Luminous intensity	I _v	If=20mA	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.

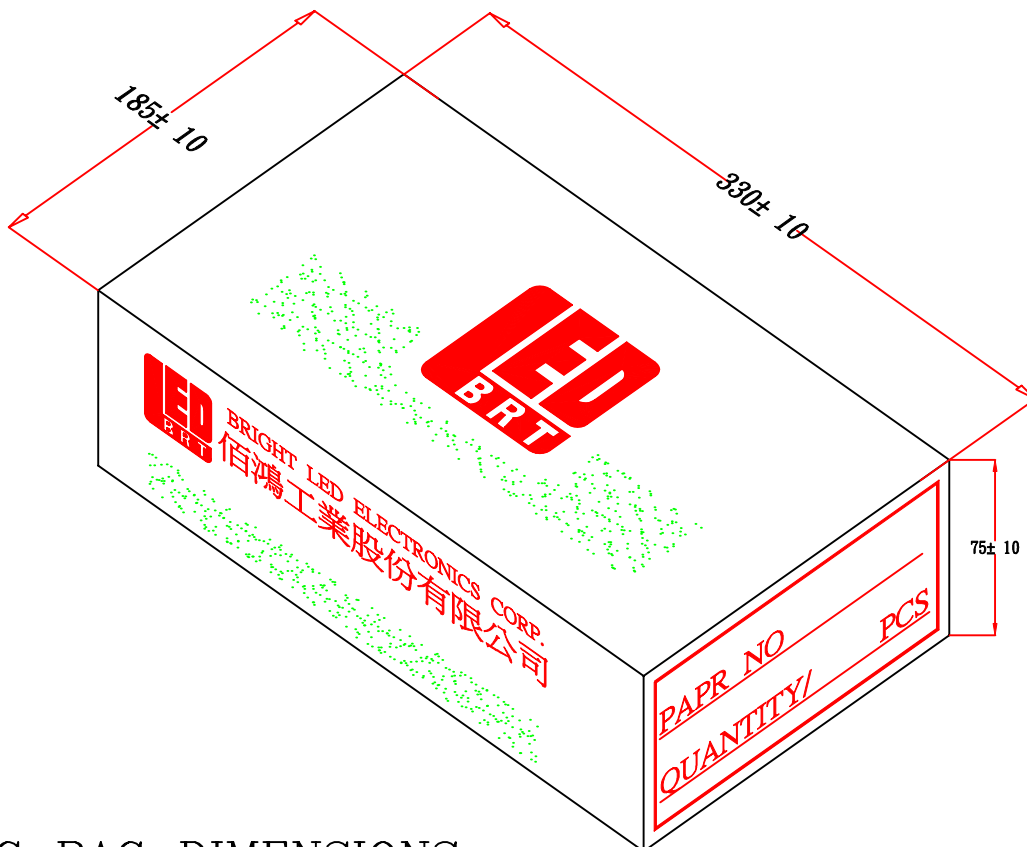
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PACKAGING DIMMENSIONS

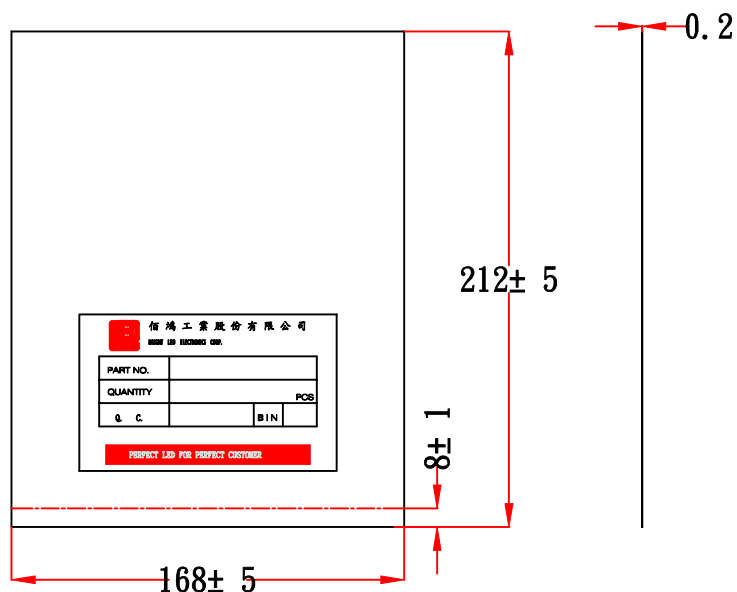
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PACKAGING BOX DIMENSIONS



PACKAGING BAG DIMENSIONS



NOTES:

1. 500PCS PER BAG, 5K PCS PER BOX
2. ALL Dimensions are in millimeters(inches).
3. Specifications are subject to change without notice.