

# BRIGHT LED ELECTRONICS CORP.

## LED LAMPS SPECIFICATION

●COMMODITY : T-1 3/4 Standard 1.0”Lead, 5 φ

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●DEVICE NUMBER : BL-BK43R4V-1

VERSION : 1.0

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

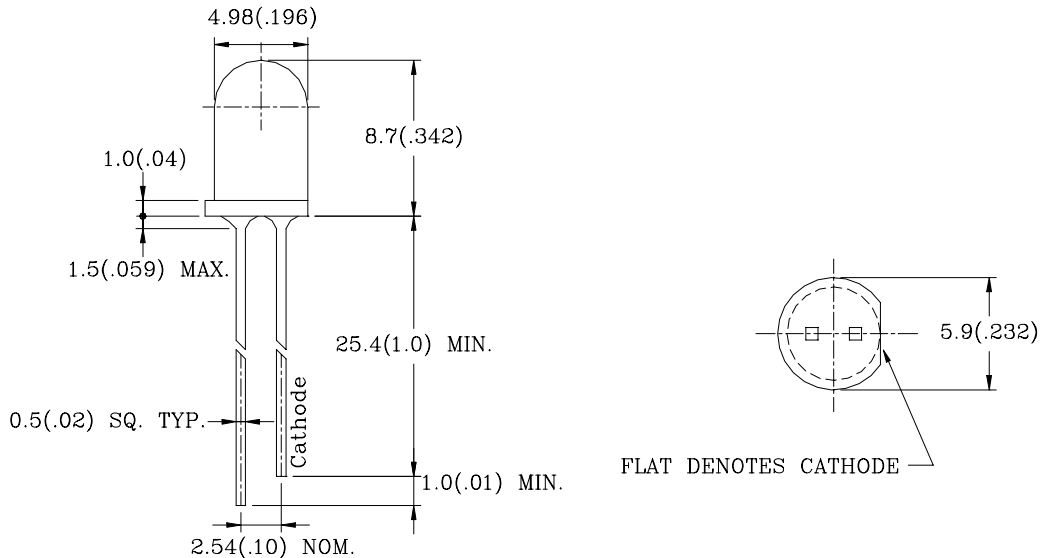
Chip		Lens  Appearance	Absolute Maximum Rating				Electro-optical Data (At 20mA)			Viewing Angle 2 θ 1/2 (deg)
Emitted Color	Peak Wave Length λ p(nm)		Δ λ (nm)	Pd (mW)	If (mA)	Peak If(mA)	Vf(V)		Iv (mcd) Typ.	
							Typ.	Max.		
Super Yellow	587	Water Clear	15	75	30	150	2.4	2.8	2400	20

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 (V<sub>R</sub>=5V) ..... 100μA  
 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 ± 0.25mm (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.

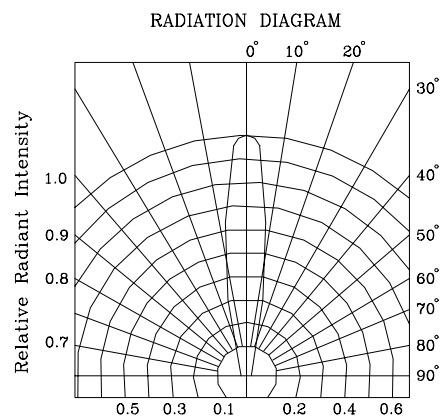
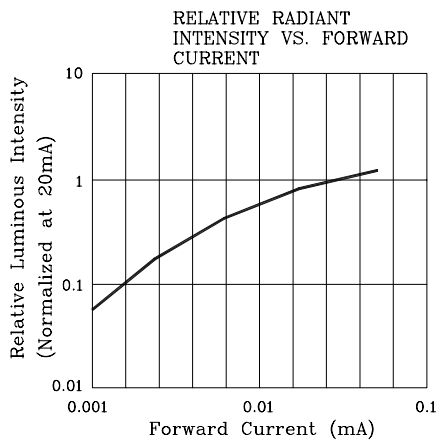
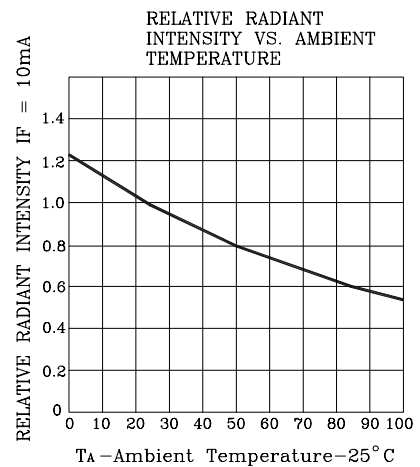
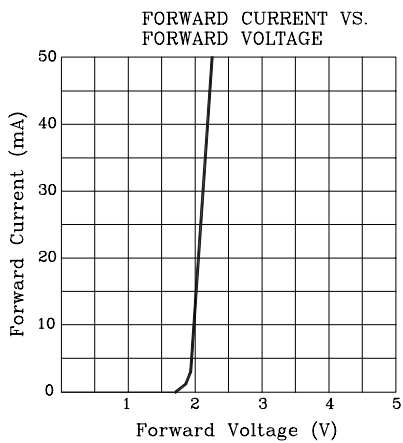
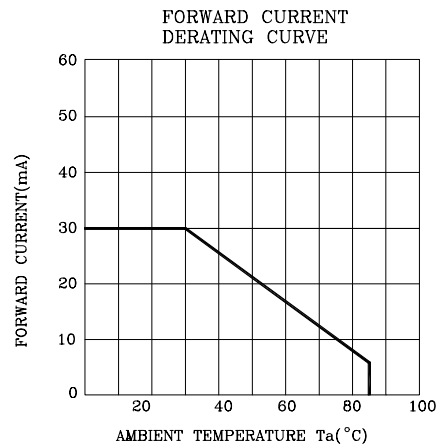
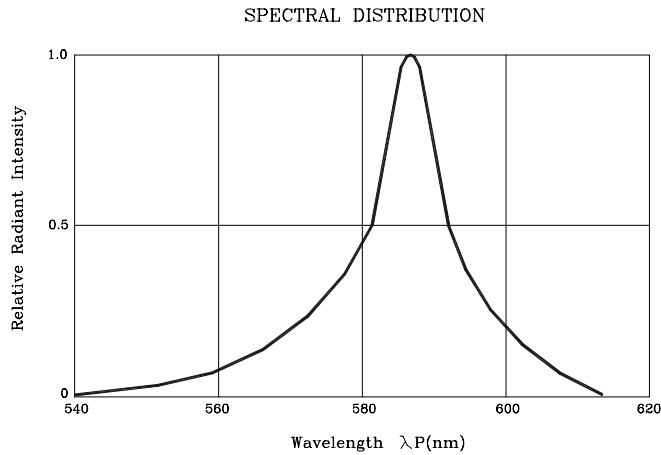
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- COMMODITY : T-1 3/4 Standard 1.0"Lead, 5  $\phi$
- DEVICE NUMBER : BL-BK43R4V-1
- ELECTRICAL AND OPTICAL CHARACTERISTICS (Ta=25°C)

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## LED LAMPS SPECIFICATION

### RELIABILITY TEST

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VERSION : 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	0/100
	High Temperature High Humidity Storage	MIL-STD-202:103B JIS C 7021 :B-11	$T_a=85^\circ\text{C}\pm 5^\circ\text{C}$ RH=90%-95% Test time=240hrs	0/100
	High Temperature Storage	MIL-STD-883:1008 JIS C 7021 :B-10	High $T_a=105^\circ\text{C}\pm 5^\circ\text{C}$ Test time=1,000hrs	0/100
	Low Temperature Storage	JIS-C-7021 :B-12	Low $T_a=-55^\circ\text{C}\pm 5^\circ\text{C}$ 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	$-55^\circ\text{C} \sim 25^\circ\text{C} \sim 105^\circ\text{C} \sim 25^\circ\text{C}$ 30min 5min 30min 5min Test Time=10cycle	0/100
	Thermal Shock	MIL-STD-202:107D MIL-STD-750:1051 MIL-STD-883:1011	$-55^\circ\text{C}\pm 5^\circ\text{C} \sim 105^\circ\text{C}\pm 5^\circ\text{C}$ 10min 10min Test Time=10cycle	0/100
	Solder Resistance	MIL-STD-202:201A MIL-STD-750:2031 JIS C 7021 :A-1	$T_{\text{sol}}=260\pm 5^\circ\text{C}$ Dwell Time= $5\pm 1\text{sec.}$	0/50
	Solder ability	MIL-STD-202:208D MIL-STD-750:2026 MIL-STD-883:2003 JIS C 7021 :A-2	$T_{\text{sol}}=230\pm 5^\circ\text{C}$ Dwell Time= $5\pm 1\text{sec.}$	0/50
	Lead Bending Stress	MIL-STD-750:2036 JIS C 7021 :A-11	$0^\circ\sim 90^\circ\sim 0^\circ$ 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	$V_F$	$I_f=20\text{mA}$	Over $U_x1.2$
Reverse current	$I_r$	$V_r=5\text{V}$	Over $U_x2$
Luminous intensity	$I_v$	$I_f=20\text{mA}$	Below $S_x0.5$

Notes: 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.