

Part No. AL-B103LRD-004

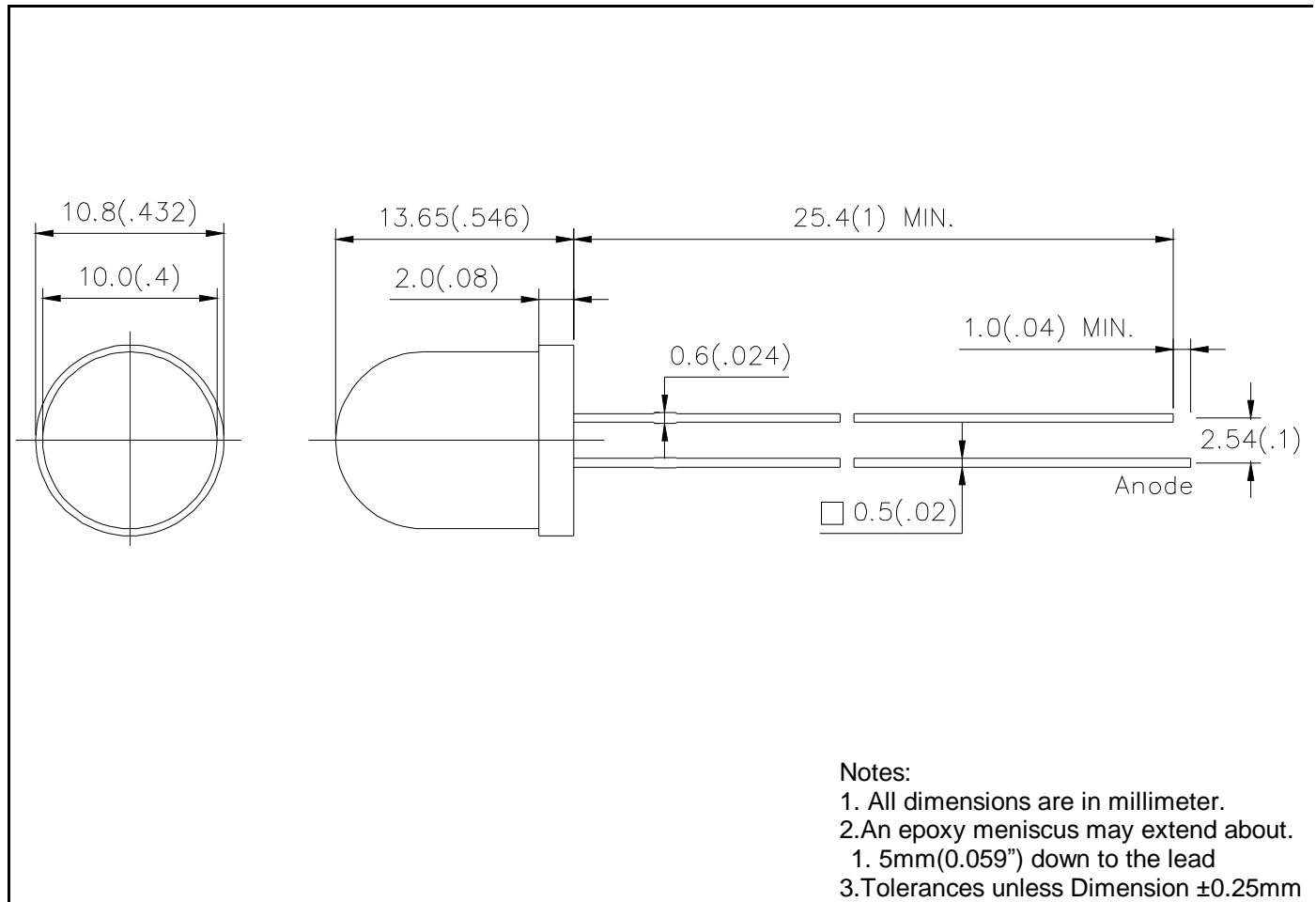
Diff No. 004

10 mm

Round

Type : Blinking LED Lamps

## Package Dimension :

**n Features :**

- I Choice of various viewing angles.
- I Available on Tape and Reel.
- I Reliable and robust.

**n Descriptions :**

- I The series is specially designed for application requiring higher brightness.
- I The LED lamps are available with different color, intensities, epoxy colors etc.

**n Applications :**

- I TV set
- I Monitor
- I Telephone

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PART NO.	Chip		Lens Color
	Material	Emitted Color	
AL-B103LRD-004	AlGaAs	S/B Red	Red Diffused

■ Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Forward Current	I <sub>F</sub>	25	mA
Operating Temperature	T <sub>opr</sub>	0 to +70	°C
Storage Temperature	T <sub>stg</sub>	-20 to +85	°C
Soldering Temperature	T <sub>sol</sub>	260±5	°C
Operating Voltage (Max.)		12	V
Storage Voltage (Max.)		0.5	V
Electrostatic Discharge	ESD	1000	V
Reverse Voltage	V <sub>R</sub>	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I <sub>v</sub>	/	50	/	mcd	I <sub>F</sub> =10mA
Pulse Rate		2.0	2.4	2.8	Hz	V <sub>DD</sub> =5V
Viewing Angle	2θ <sub>1/2</sub>	/	50	/	deg	I <sub>F</sub> =20mA
Peak Wavelength	λ <sub>p</sub>	/	660	/	nm	I <sub>F</sub> =20mA
Dominant Wavelength	λ <sub>d</sub>	/	/	/	nm	I <sub>F</sub> =20mA
Spectrum Radiation Bandwidth	Δλ	/	45	/	nm	I <sub>F</sub> =20mA

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■ Reliability test items and conditions :

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 V=10V 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

■ Typical Characteristics (The data typical , and the value is not guaranteed.)

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