

Part No. AL-B513LRD-004

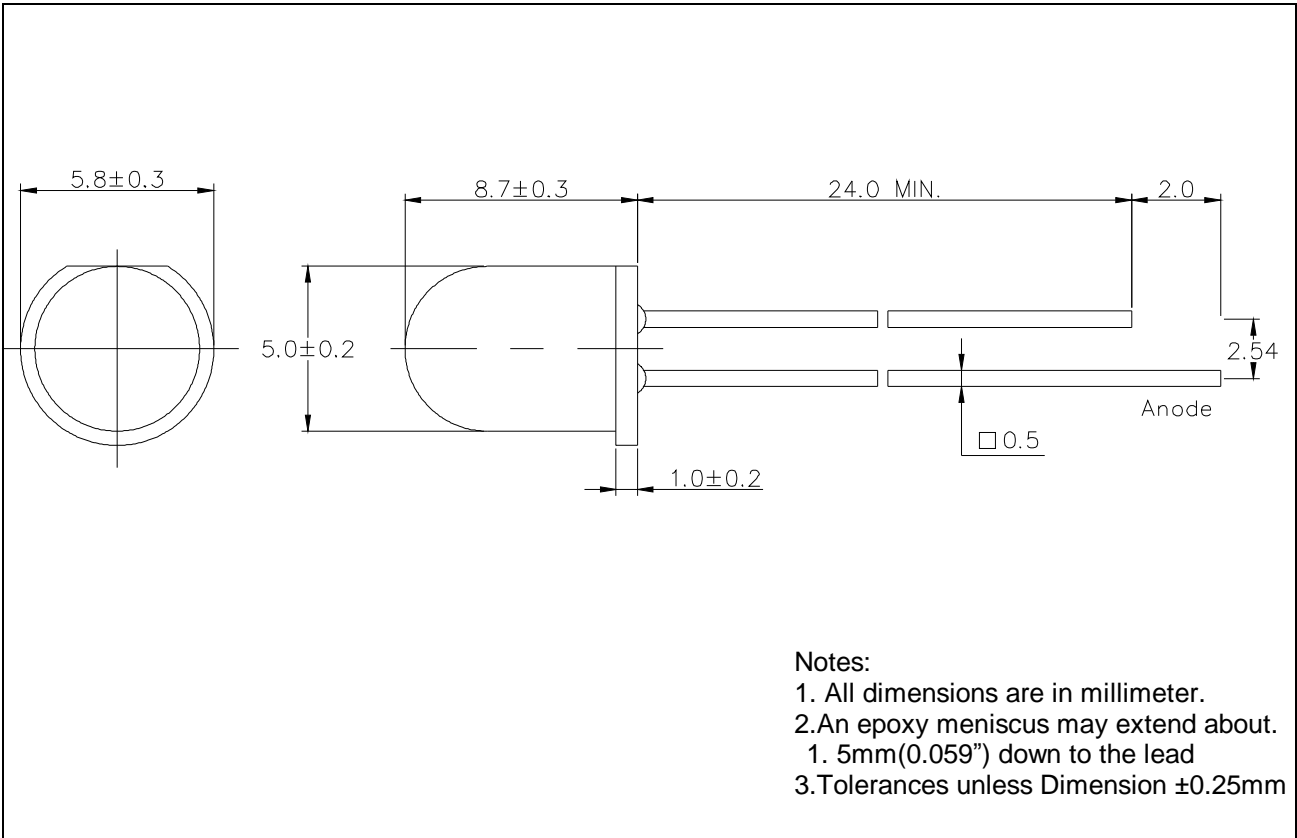
Diff No. 004

5 mm

Round

Type : Blinking Lamps

Package Dimension :



n Features :

| Choice of various viewing angles.

| Available on Tape and Reel.

| Reliable and robust.

n Descriptions :

| The series is specially designed for application requiring higher brightness.

| The LED lamps are available with different color, intensities, epoxy colors etc.

n Applications :

| TV set

| Monitor

| Telephone

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PART NO.	Chip		Lens Color
	Material	Emitted Color	
AL-B513LRD-004	AlGaAs	Red	Red Diffused

Characters :

- § 1/4 duty cycle.
- § Frequency tolerance : $\pm 20\%$
- § Blinking frequency : 2.4Hz($V_{DD}=5V$)
- § Operating voltage range : 3V~10V DC
- § Standard 5mm diameter package.
- § With both sink and source output drivers.

Blinking frequency VS. External part value

$V_{DD}=3V$

Rosc/Cosc	Fblk(Hz)
Cosc = 47pF	0.5
Cosc = 30pF	0.66
Cosc = 20pF	0.8
Cosc = 10pF	1
Cosc = 5pF	1.16
Rosc = 510K Ω	2
Rosc = 390K Ω	2.2
Rosc = 300K Ω	2.4
Rosc = 240K Ω	2.6
Rosc = 200K Ω	2.8
Rosc = 160K Ω	3
Rosc = 120K Ω	3.4
Rosc = 100K Ω	3.66
Rosc = 68K Ω	4.2
Rosc = 47K Ω	4.8
Rosc = 33K Ω	5.3
Rosc = 20K Ω	6
Rosc = 12K Ω	6.5
Rosc = 5.6K Ω	7
Rosc = 2K Ω	7.2

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■ Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	Rating	Unit
Forward Current	I _F	20	mA
Operating Temperature	T _{opr}	-25 to +85	°C
Storage Temperature	T _{stg}	-40 to +100	°C
Soldering Temperature	T _{sol}	260 ± 5	°C
Electrostatic Discharge	ESD	1000	V
Power Dissipation	P _D	80	mW
Peak Forward Current (Duty 1/10@1KHz)	I _F (Peak)	100	mA
Reverse Voltage	V _R	5	V

* Duty 1/10 Pulse Width 0.1ms.

* At the position of 4mm from the bottom of the package within 5 seconds.

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit
Blinking Frequency	F _{blk}	2	2.4	2.8	Hz
Output sink Current	L _{sink}	/	45	/	mA
Output source Current	L _{source}	/	25	/	mA
Peak Wavelength	λ _p	/	660	/	nm
Dominant Wavelength	λ _d	/	643	/	nm
Spectrum Radiation Bandwidth	Δλ	/	20	/	nm
Operating Voltage	V _{DD}	3	5	10	V

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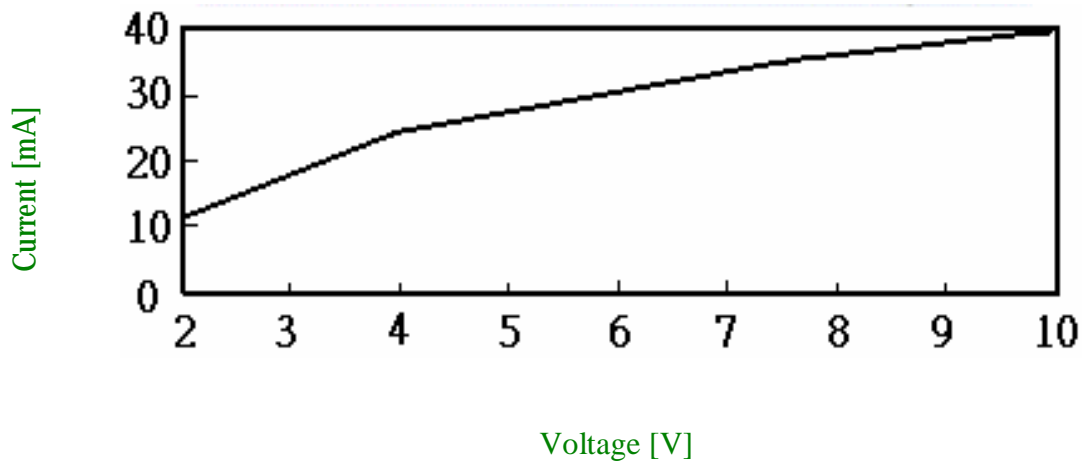
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Source output current VS. Operating voltage



Blinking frequency VS. Operating

