



EVERLIGHT ELECTRONICS CO.,LTD.

DEVICE NUMBER : DLE-912-084REV : 1.3ECN : PAGE : 1/4

1.8mm Round Subminiature Axial LED

MODEL NO : 91-21VGC

Features :

- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- I.C. compatible.
- EIA std package.
- Mono-color type.

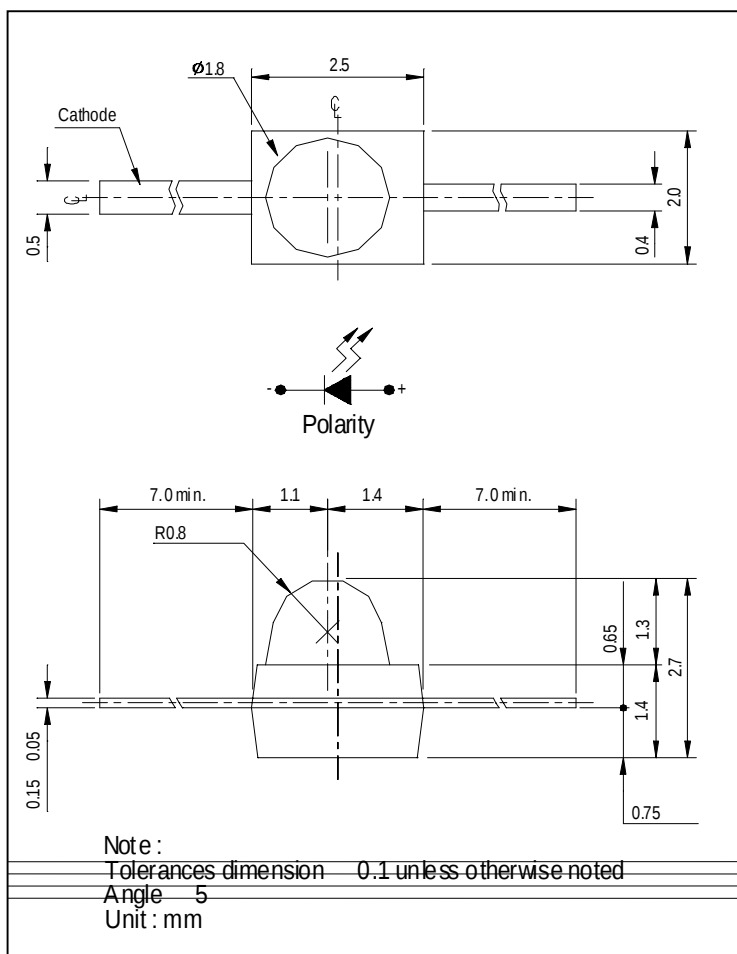
Descriptions :

- Besides, light weight makes them ideal for miniature application, etc.
- Furthermore by automation assembly machines the accuracy is anticipated.

Applications :

- Small indicator for outdoor applications.
- Flat backlight for LCD, switch and symbol.
- Indicator and backlight in office equipment.
- Indicator and backlight for battery driven equipment.
- Indicator and backlight for audio and video equipment.
- Automotive : backlighting in dashboard and switch.
- Telecommunication : indicator and backlighting in telephone and fax.
- General use.

Package Dimensions :



PART NO.	CHIP		Lens Color
	Material	Emitted Color	
91-21VGC	GaP	Green	Water Clear

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■ Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	30	mA
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature	Tsol	260 ± 5 for 5 sec	°C
Power Dissipation	Pd	100	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	If(Peak)	160	mA

■ Electronic Optical Characteristics :

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Luminous intensity	Iv	30	50	----	mcd	If = 20mA
Viewing Angle	2 θ 1/2	----	25	----	deg	
Peak Wavelength	λ p	----	570	----	nm	
Dominant Wavelength	λ d	----	571	----	nm	
Spectrum Radiation Bandwidth	△ λ	----	30	----	nm	
Forward Voltage	Vf	1.7	2.1	2.4	V	Vr=5V
Reverse Current	Ir	----	----	10	μ A	



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■ Reliability Test Item And Condition

NO.	Item	Test Conditions	Test Hours/ Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260°C ± 5 °C	5 sec	76 pcs	0/1
2	Temperature Cycle	H : +85°C 30 min ↑↓ 5 min ↓ L : -55°C 30 min	50 cycle	76 pcs	0/1
3	Thermal Shock	H : +100°C 5 min ↑↓ 10 sec ↓ L : -10°C 30 min	50 cycle	76 pcs	0/1
4	High Temperature Storage	TEMP. : +100°C	1000 hrs	76 pcs	0/1
5	Low Temperature Storage	TEMP. : -55°C	1000 hrs	76 pcs	0/1
6	DC Operating Life	If = 20 mA	1000 hrs	76 pcs	0/1
7	High Temperature / High Humidity	85°C / 85% R.H.	1000 hrs	76 pcs	0/1



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Typical Electro-Optical Characteristic Curves

