EVERLIGHT ELECTRONICS CO.,LTD.

DEVICE NUMBER : DLE-912-078 REV : 1.2
ECN : PAGE : 1/5

1.8mm Round Subminiature"Z-Bend" Axial LEDs

PART NO. : 91-21VGC/TR10

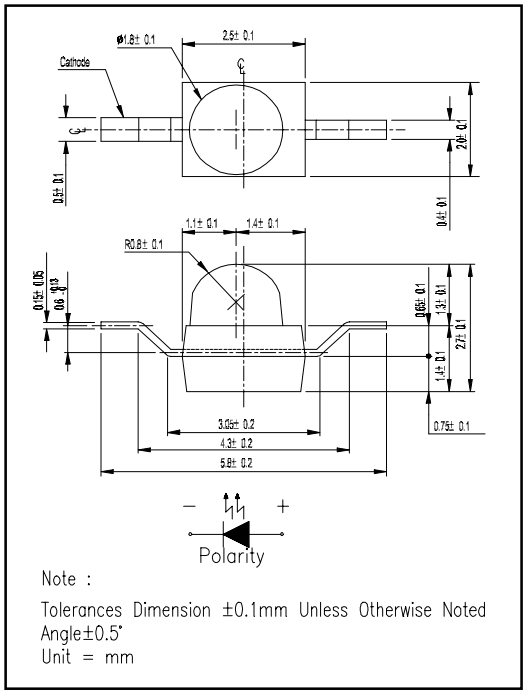
Features :

- Package in 12mm tape on 7" diameter reels.
- Compatible with automatic placement equipment.
- Compatible with infrared and vapor phase reflow solder process.
- IC compatible.
- EIA std package.
- Mono-color type.

Descriptions :

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

Package Dimensions :



Applications :

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

PART NO.	Chip		Lens Color
	Material	Emitted Color	
91-21VGC/TR10	GaP	Green	Water Clear

OFFICE : NO. 25,Lane 76,Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.
TEL : 886-2-2267-2000,2267-9936
FAX : 886-2-2267-6244,22676189,22676306
http://www.everlight.com

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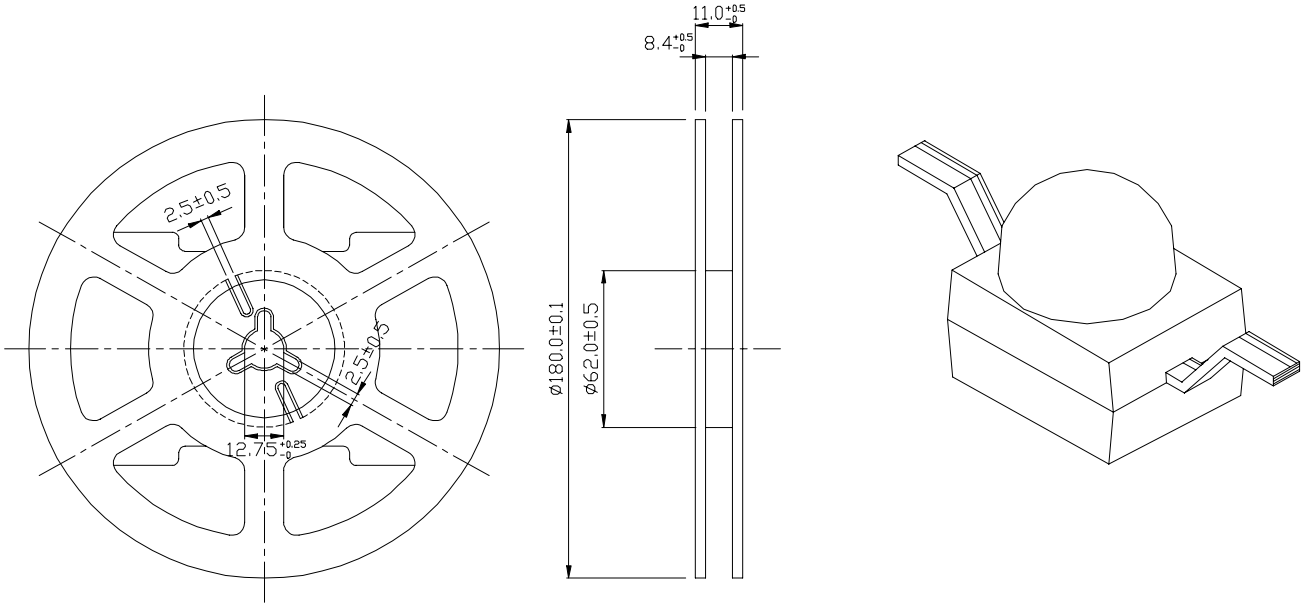
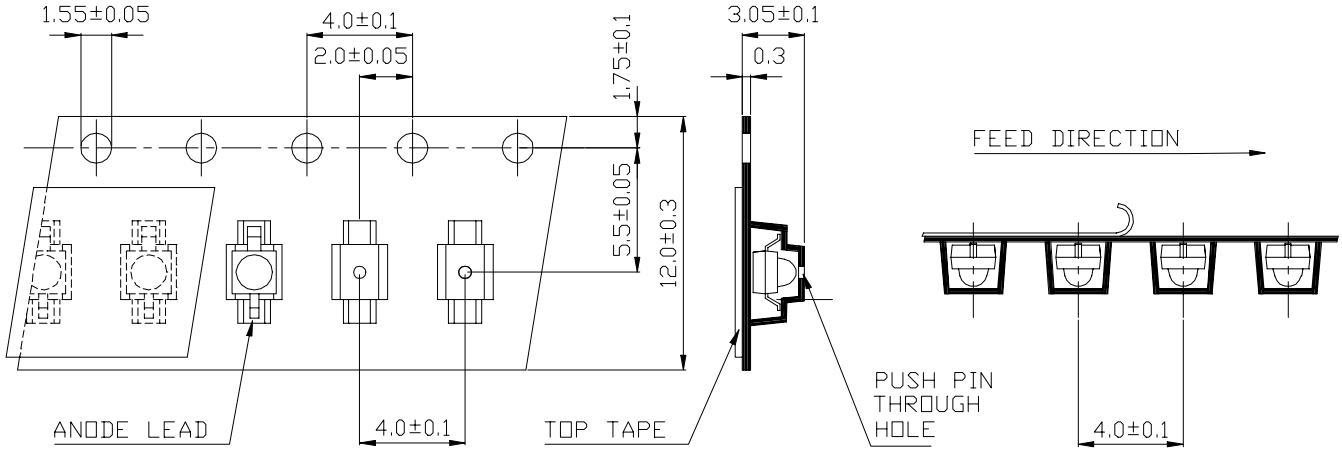
■ Package Dimensions



■ Loaded Quantity Per Reel 1000 Pcs/Reel



1. All dimensions are in millimeters.
2. Lead spacing is measured where the lead emerge from the package
3. Protruded resin under flange 1.5 mm (0.59") max.

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■ Absolute Maximum Ratings at T_A = 25℃

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

■ Electronic Optical Characteristics :

Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Luminous Intensity	Iv	30	50	----	mcd	I_F = 20mA
Viewing Angle	2θ 1/2	----	25	----	deg	
Peak Wavelength	λ p	----	570	----	nm	
Dominant Wavelength	λ d	----	571	----	nm	
Spectrum Radiation Bandwidth	△ λ	----	30	----	nm	
Forward Voltage	V_F	1.7	2.1	2.4	V	
Reverse Current	I_R	----	----	10	μA	V_R=5V

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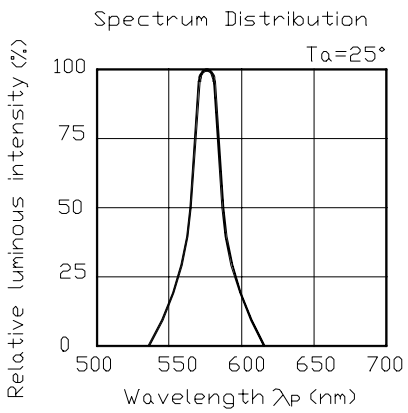
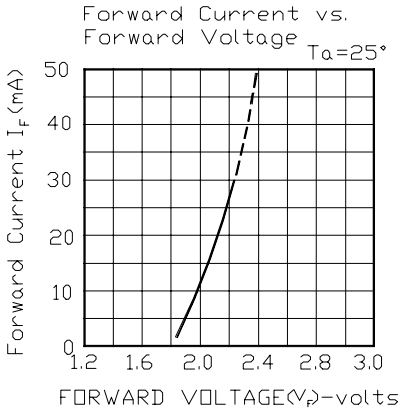
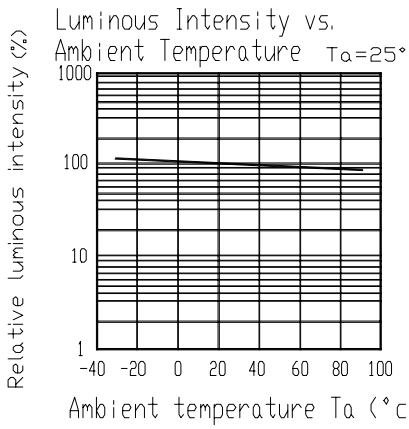
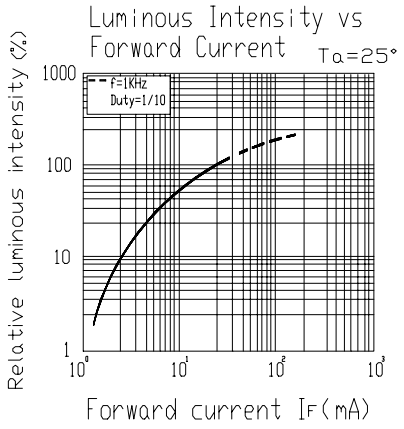
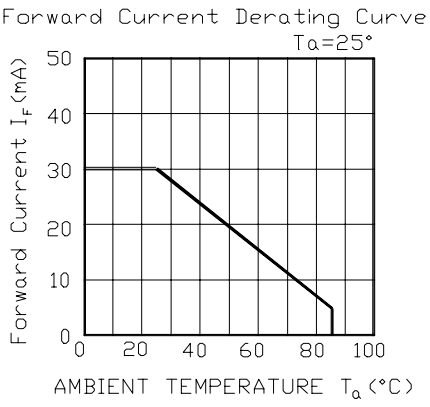
■ Typical Electro-Optical Characteristic Curres

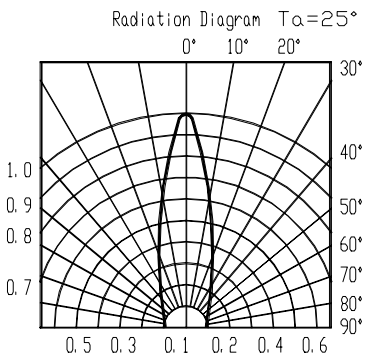












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■ Reliability Test Items And Conditions

NO.	Item	Test Conditions	Test Hours/ Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : 260℃ ± 5 ℃	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85℃ 30 min ↕ 5 min L : -55℃ 30 min	50 CYCLE	76 PCS	0/1
3	Thermal Shock	H : +100℃ 5 min ↕ 10 sec L : -10℃ 30 min	50 CYCLE	76 PCS	0/1
4	High Temperature Storage	TEMP. : +100℃	1000 HRS	76 PCS	0/1
5	Low Temperature Storage	TEMP. : -55℃	1000 HRS	76 PCS	0/1
6	DC Operating Life	I_F = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85℃ / 85% R.H.	1000 HRS	76 PCS	0/1