EVERLIGHT ELECTRONICS CO.,LTD.

DEVICE NUMBER : DLE-912-053 REV : 1.3

ECN : PAGE : 1/5

1.8mm Round Subminiature Axial LEDs

PART NO : 91-21VGC/TR7

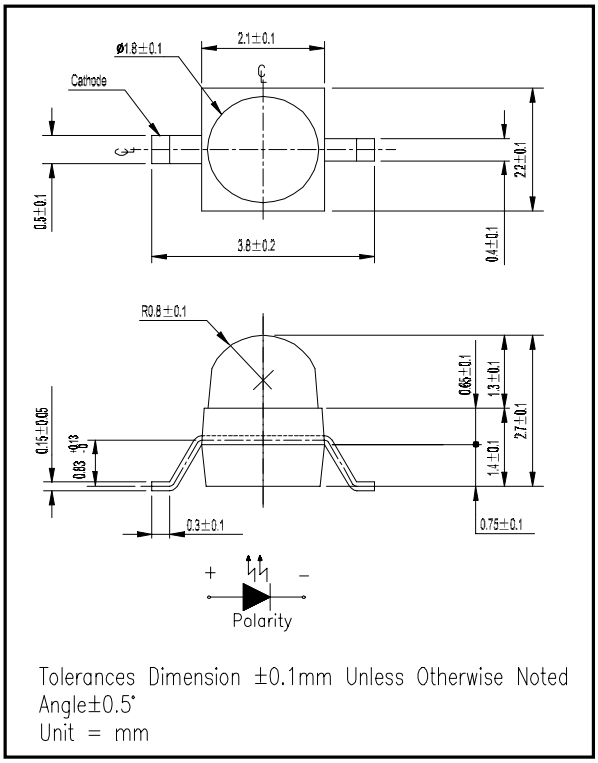
Features :

- 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 :

- The 91-21 SMD taping is much smaller than lead frame type compoments. Thusenable smaller board size.Higher packing density. Reduced storage space and finally smaller equipment to be obtained.
- Besides, light weight makes them ideal for miniature applications, ect.
- 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 offic 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.

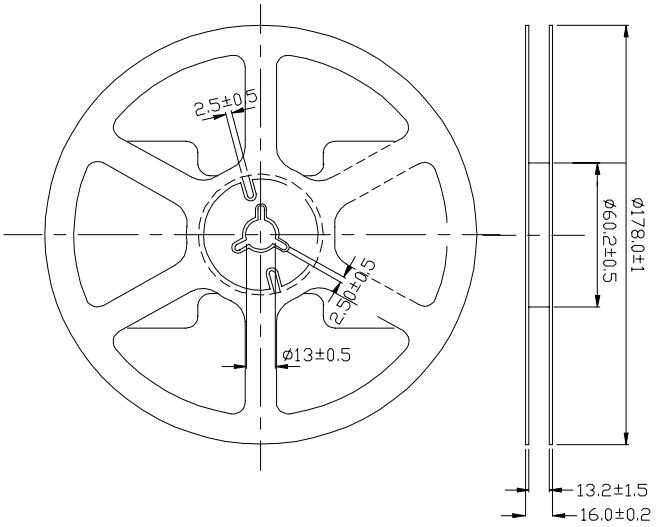
PART NO.	Chip		Lens Color
	Material	Emitted Color	
91-21VGC/TR7	GaP	Green	Water Clear

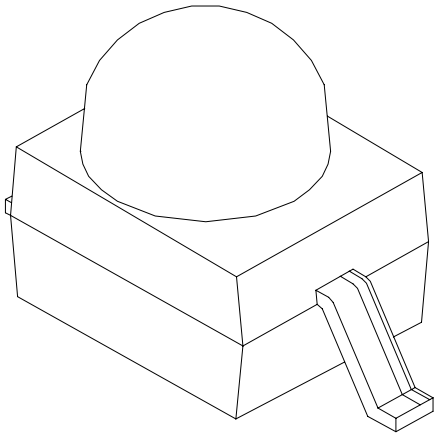
OFFICE : NO. 25,Lane 76,Sec.3, Chung Yang Rd., Tucheng 236, Taipei, Taiwan, R.O.C.
TEL : 886-2-2267-2000,2267-9936
FAX : 886-2-2267-6244,22676189,22676306
http://www.everlight.com

1.8mm Round Subminiature Axial LEDs

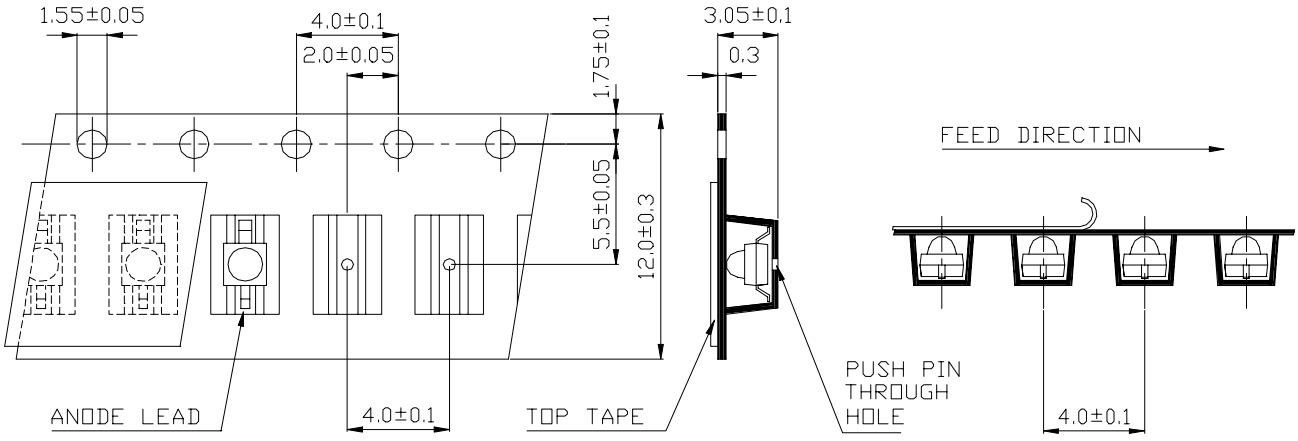
PART NO : 91-21VGC/TR7

■ 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.

1.8mm Round Subminiature Axial LEDs

PART NO : 91-21VGC/TR7

■ 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

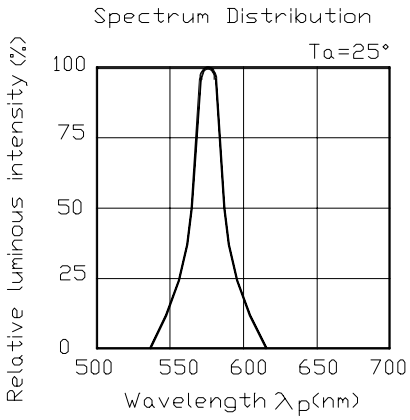
■ Electronic Optical Characteristics :

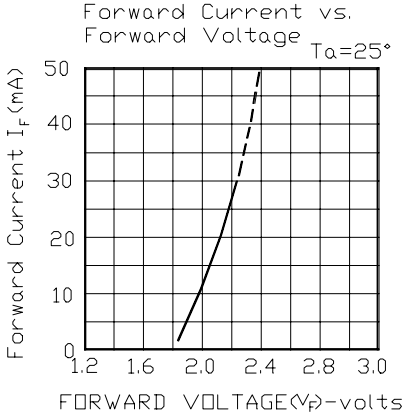
Parameter	Symbol	MIN.	TYP.	MAX.	Unit	Condition
Luminous Intensity	Iv	30	50	----	mcd	I_F = 20mA
Viewing Angle	2 θ 1/2	----	30	----	deg	
Peak Wavelength	λ p	----	570	----	nm	
Dominant Wavelength	λ d	571	----	574	nm	
Spectrum Radiation Bandwidth	$\triangle \lambda$	----	30	----	nm	
Forward Voltage	VF	1.8	2.25	2.4	V	
Reverse Current	I_R	----	----	10	μ A	V_R=5V

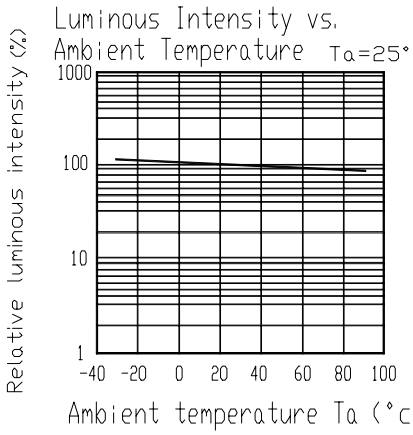
1.8mm Round Subminiature Axial LEDs

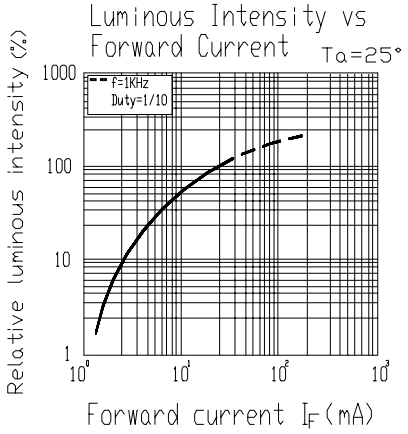
PART NO : 91-21VGC/TR7

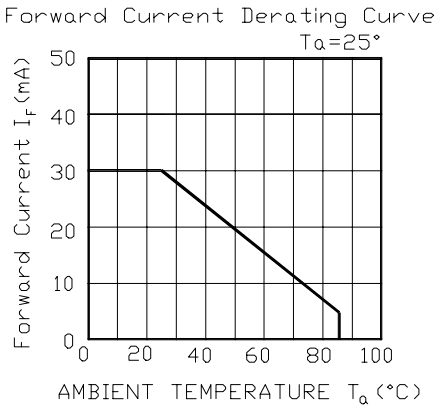
■ Typical Electro-Optical Characteristic Curres

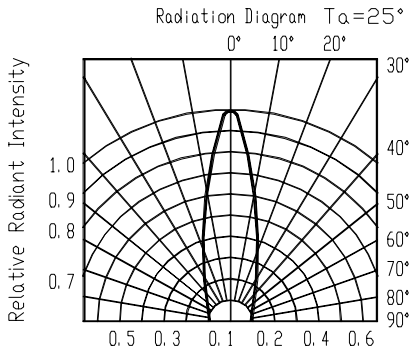












1.8mm Round Subminiature Axial LEDs

PART NO : 91-21VGC/TR7

■ 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