



# EVERLIGHT ELECTRONICS CO.,LTD.

DEVICE NUMBER : DLE-952-051 REV : 1.1

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## 1.8mm Round Subminiature" Yoke"Lead LEDs

MODEL NO : 95-21VRC/TR9

### Features :

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

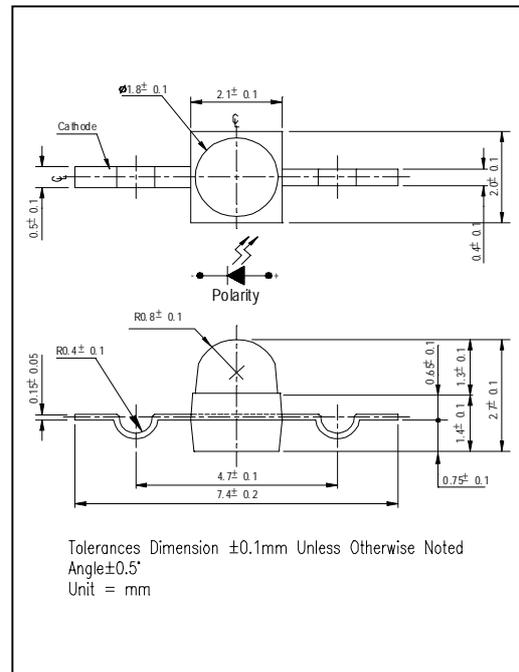
### Descriptions :

- The 95-21 SMD taping is much smaller than lead frame type compoments. Thus enable 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, etc.
- Furthermore by automation assembly machines the accuracy is anticipated.

### 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.

### Package Dimensions :



PART NO.	Chip		Lens Color
	Material	Emitted Color	
95-21VRC/TR9	GaAsP/GaP	Hi-Eff Red	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

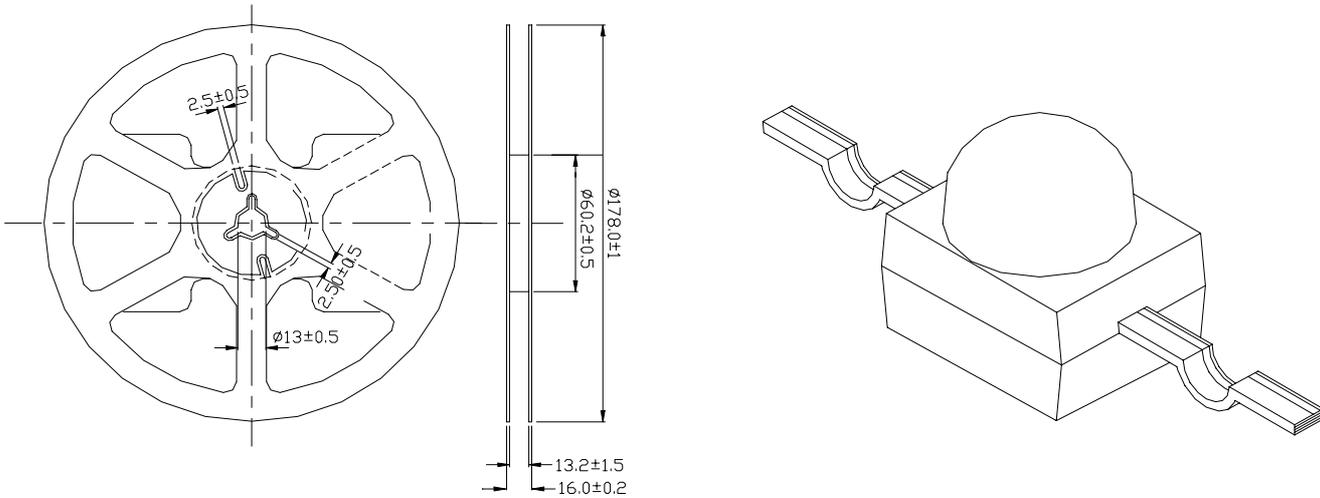
FAX : 886-2-2267-6244,22676189,22676306

<http://www.everlight.com>

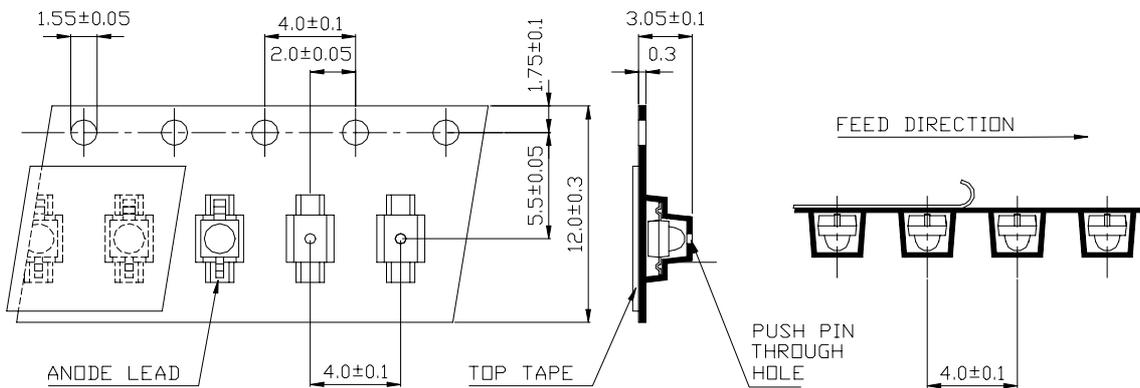
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■ Package Dimensions



■ Loaded Quantity Per Reel 1000 Pcs/Reel



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



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### ■ Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Reverse Voltage	V <sub>R</sub>	5	V
Forward Current	I <sub>F</sub>	30	mA
Operating Temperature	T <sub>opr</sub>	-40 ~ +85	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Soldering Temperature	T <sub>sol</sub>	260 ± 5 (for 5 sec)	°C
Power Dissipation	P <sub>d</sub>	100	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	I <sub>F</sub> (Peak)	160	mA

### ■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I <sub>v</sub>	48	80	----	mcd	I <sub>F</sub> = 20mA
Viewing Angle	2θ 1/2	----	25	----	deg	
Peak Wavelength	λ <sub>p</sub>	----	640	----	nm	
Dominant Wavelength	λ <sub>d</sub>	----	625	----	nm	
Spectrum Radiation Bandwidth	△λ	----	45	----	nm	
Forward Voltage	V <sub>F</sub>	1.7	2.0	2.4	V	
Reverse Current	I <sub>R</sub>	----	----	10	μA	V <sub>R</sub> =5V



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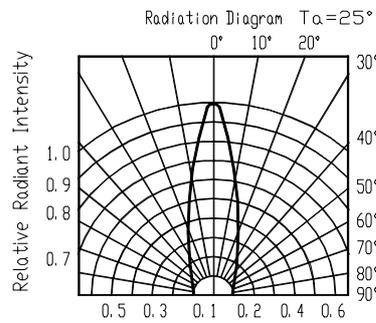
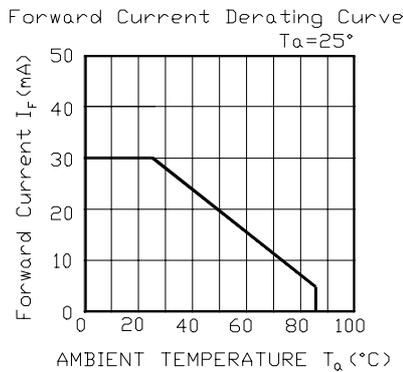
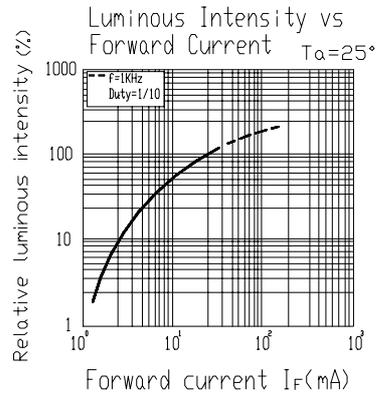
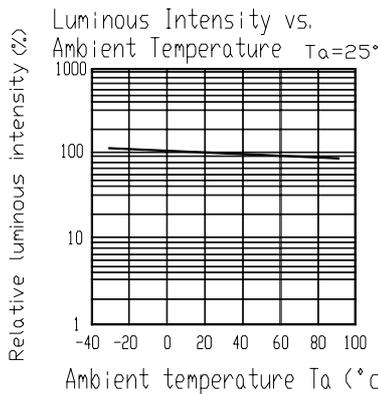
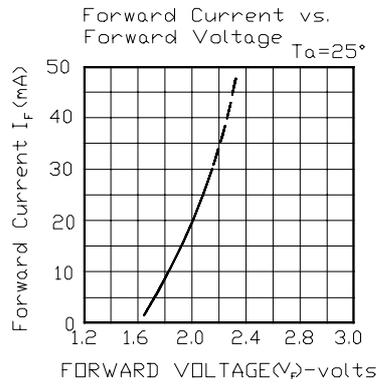
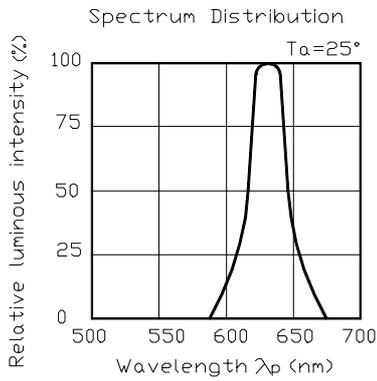
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### Typical Electro-Optical Characteristic Curves





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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°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 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5 min ↑ 10 sec ↓ L : -10°C 30 min	50 CYCLES	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	I <sub>F</sub> = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C / 85% R.H.	1000 HRS	76 PCS	0/1