



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.

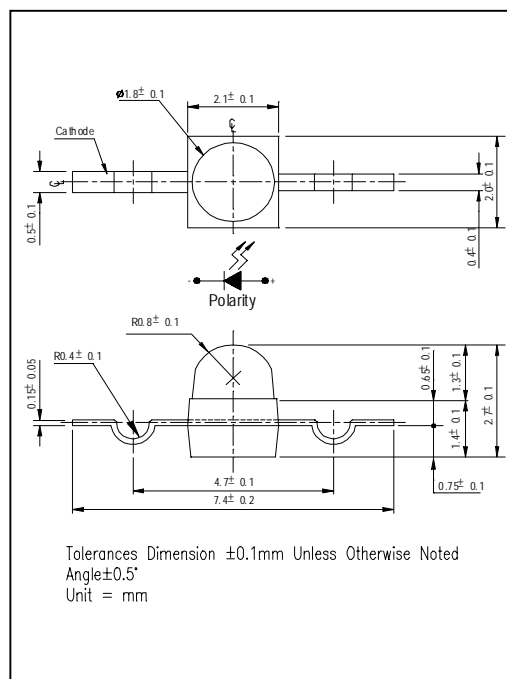
Descriptions :

- 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

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<http://www.everlight.com>



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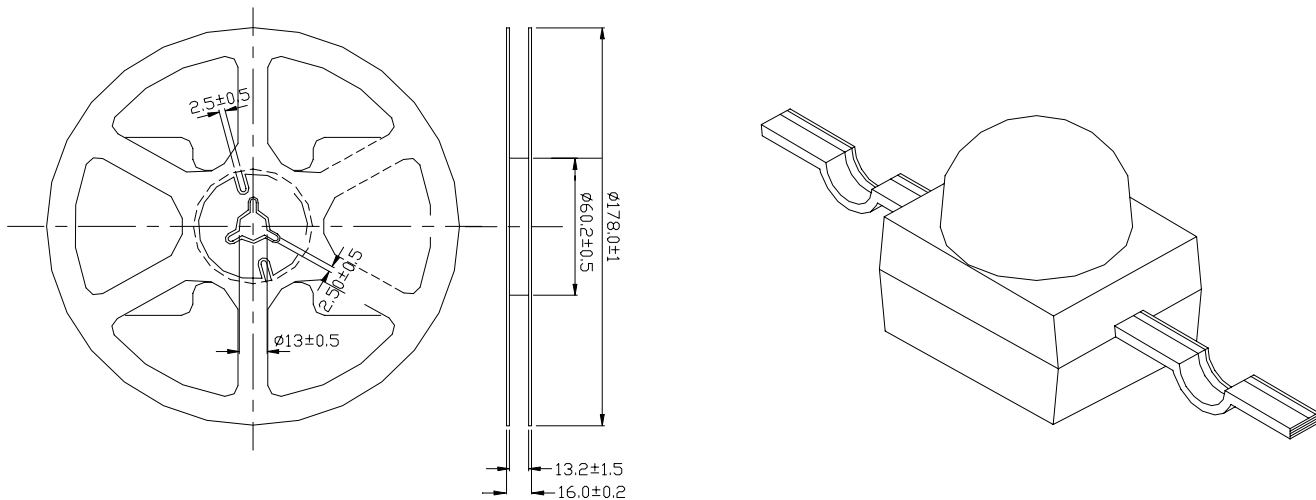
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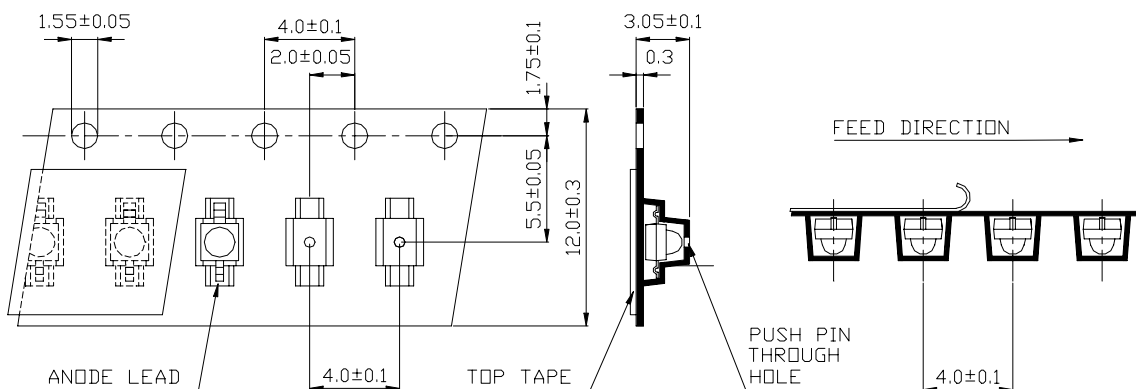
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■ Package Dimensions



■ 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_R	5	V
Forward Current	I_F	30	mA
Operating Temperature	T_{opr}	-40 ~ +85	°C
Storage Temperature	T_{stg}	-40 ~ +100	°C
Soldering Temperature	T_{sol}	260 ± 5 (for 5 sec)	°C
Power Dissipation	P_d	100	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	$I_F(\text{Peak})$	160	mA

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	I _v	48	80	----	mcd	I _F = 20mA
Viewing Angle	2 θ 1/2	----	25	----	deg	
Peak Wavelength	λ _p	----	640	----	nm	
Dominant Wavelength	λ _d	----	625	----	nm	
Spectrum Radiation Bandwidth	△ λ	----	45	----	nm	
Forward Voltage	V _F	1.7	2.0	2.4	V	
Reverse Current	I _R	----	----	10	μ A	V _R =5V



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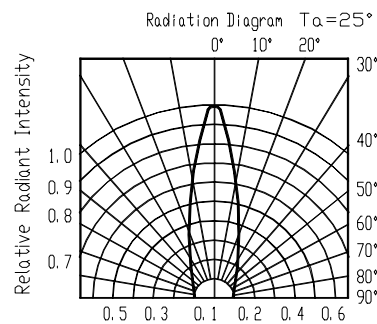
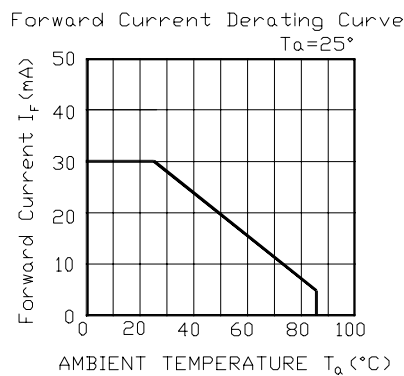
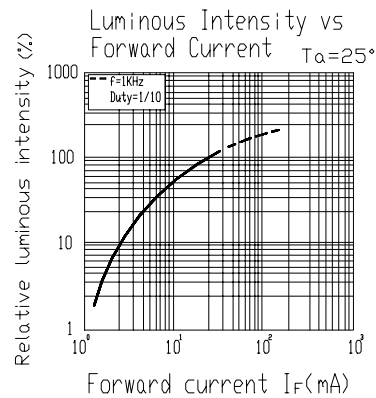
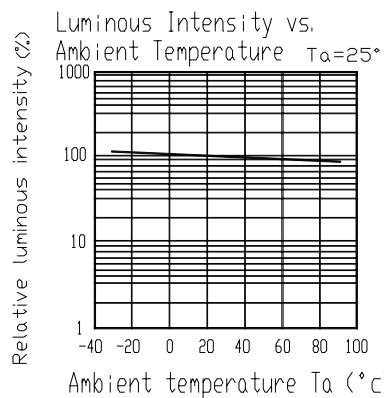
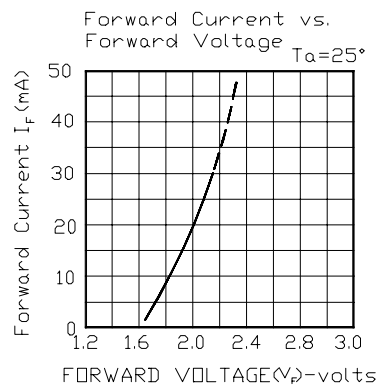
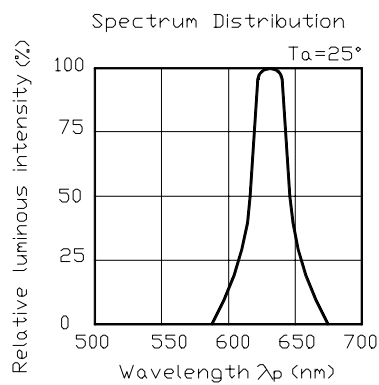
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Typical Electro-Optical Characteristic Curves





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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	<div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: right; margin-right: 10px;">H : +85°C</div> <div style="text-align: center; margin-right: 10px;"> <div style="border-top: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> <div style="border-bottom: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> </div> <div style="text-align: left; margin-left: 10px;">30 min</div> </div> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <div style="text-align: right; margin-right: 10px;">5 min</div> <div style="text-align: center; margin-right: 10px;"> <div style="border-top: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> <div style="border-bottom: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> </div> <div style="text-align: left; margin-left: 10px;">30 min</div> </div> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <div style="text-align: right; margin-right: 10px;">L : -55°C</div> <div style="text-align: center; margin-right: 10px;"> <div style="border-top: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> <div style="border-bottom: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> </div> <div style="text-align: left; margin-left: 10px;">30 min</div> </div>	50 CYCLES	76 PCS	0/1
3	Thermal Shock	<div style="display: flex; align-items: center; justify-content: center;"> <div style="text-align: right; margin-right: 10px;">H : +100°C</div> <div style="text-align: center; margin-right: 10px;"> <div style="border-top: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> <div style="border-bottom: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> </div> <div style="text-align: left; margin-left: 10px;">5 min</div> </div> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <div style="text-align: right; margin-right: 10px;">10 sec</div> <div style="text-align: center; margin-right: 10px;"> <div style="border-top: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> <div style="border-bottom: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> </div> <div style="text-align: left; margin-left: 10px;">30 min</div> </div> <div style="display: flex; align-items: center; justify-content: center; margin-top: 10px;"> <div style="text-align: right; margin-right: 10px;">L : -10°C</div> <div style="text-align: center; margin-right: 10px;"> <div style="border-top: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> <div style="border-bottom: 1px solid black; height: 20px; width: 1px; margin: 0 auto;"></div> </div> <div style="text-align: left; margin-left: 10px;">30 min</div> </div>	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 _F = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C / 85% R.H.	1000 HRS	76 PCS	0/1