

DEVICE NUMBER : DLE-912-289 REV : 1.0ECN : _____ PAGE : 1/5

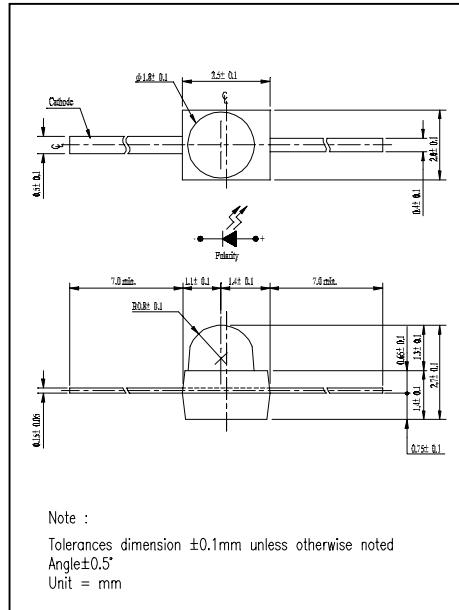
1.8mm Round Subminiature "Z-Bend" Lead LEDs

MODEL NO : 91-21SURC/S530-A4

■ Features :

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

■ Package Dimensions :



■ Description :

- The 91-21 SMD taping is much smaller than leaded components. 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 application, ect.
- 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 offic 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.

PART NO.	CHIP		Lens Color
	Material	Emitted Color	
91-21SURC/S530-A4/TR10	AlGaInP	Hyper Red	Water Clear

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EVERLIGHT ELECTRONICS CO.,LTD.

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■ Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	25	mA
Operating Temperature	Topr	-40 ~ +85	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature	Tsol	260 ± 5 for 5 sec	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	Pd	60	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	----	51	----		If = 2mA
Luminous intensity	Iv	634	846	----	mcd	If = 20mA
Viewing Angle	2θ 1/2	----	25	----	deg	
Peak Wavelength	λ p	----	632	----	nm	
Dominant Wavelength	λ d	----	624	----	nm	
Spectrum Rediation Bandwidth	△λ	----	20	----	nm	
Forward Voltage	Vf	----	2.0	2.4	V	
Reverse Current	Ir	----	----	10	μA	Vr=5V



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■ Reliability Test Item And Condition

NO.	Item	Test Conditions	Test Hours/ Cycle	Sample Size	Ac/Re
1	Solder Heat	TEMP : $260^{\circ}\text{C} \pm 5^{\circ}\text{C}$	5 sec	76 pcs	0/1
2	Temperature Cycle	H : $+85^{\circ}\text{C}$ 30 min ↓ L : -55°C 30 min	5 min 50 cycle	76 pcs	0/1
3	Thermal Shock	H : $+100^{\circ}\text{C}$ 5 min ↓ L : -10°C 30 min	10 sec 50 cycle	76 pcs	0/1
4	High Temperature Storage	TEMP. : $+100^{\circ}\text{C}$	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	$85^{\circ}\text{C} / 85\% \text{ R.H.}$	1000 hrs	76 pcs	0/1

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MODEL NO : 91-21SURC/S530-A4**■ Typical Electro-Optical Characteristic Curves**