



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDW-110-010 REV: 1.0

20mm Round Big LED Lamp

MODEL NO : EL-1103ID

ECN : Page: 1/5

■ Features :

- Graphic stacking allow-able.
- High luminous intensity.
- Solid state reliability.

■ Applications:

- Audio equipment
- Instrument panels
- Digital readout display

■ Description :

- The EL-1103 series consists of 20.0mm diameter big lamps.design for viewing distances up to 7 meters.
- There are separate anodes and cathodes for each light segment and choice of five colors is offered.
- These device are available with red offering a wide possibility in design.

PART NO	CHIP		C.C. or C.A.
	Material	Emitted Color	
EL-1103ID	GsAsP/GaP	Orange	*****

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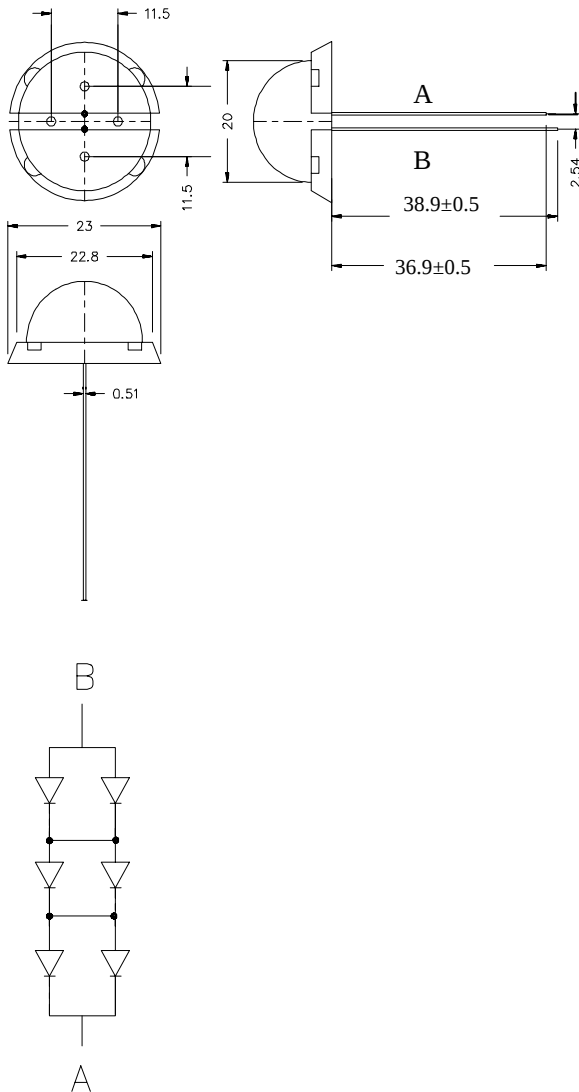
<http://www.everlight.com>



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■ Package Dimension:



■ NOTES:

- 1.All dimensions are millimeters , tolerance is 0.25mm unless otherwise noted.
 - 2.Above specification may be changed without notice.
- Supplier will reserve authority on material change for above specification.



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■ Absolute maximum ratings at Ta = 25°C :

Parameter	Symbol	Rating	Unit
Reverse Voltage	Vr	5	V
Forward Current	If	30	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	TsTg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Power Dissipation	Pd	100	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	If(Peak)	160	mA

■ Electronic optical characteristics :

Parameter		Symbol	MIN.	TYP.	MAX.	Unit	Condition
Luminous Intensity	Per segment	Iv	5.6	25.0	----	mcd	If=10mA
Peak Wavelength		λ_p	----	635	----	nm	If=20mA
Dominant Wavelength		λ_d	----	625	----	nm	If=20mA
Spectrum Radiation Bandwidth		$\Delta \lambda$	----	45	----	nm	If=20mA
Forward Voltage		Vf	1.7	2.0	2.6	V	If=20mA
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°C ± 5 °C	5 SEC	76 PCS	0/1
2	Temperature Cycle	H : +85°C 30min ∫ 5 min L : -55°C 30min	50 CYCLE	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min ∫ 10 sec L : -10°C 5min	50 CYCLE	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	If = 20 mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS	0/1



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Typical Electro-Optical Characteristic Curves:

