



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-010-008

REV: 2.0

2.0mm Tower Type LED Lamps

MODEL NO : 103HD

ECN :

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■ Features :

- Low powre consumption.
- Suitable for pulse operation.
- Most suitable for audio panel indicator
- Fits 2mm hole in panels up 4.5mm (0.177inch)thick.

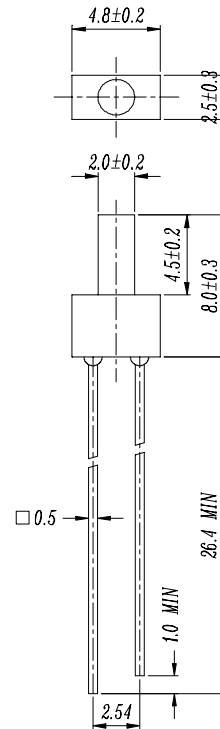
■ Descriptions :

- The shape of this series is round.
- General application is for indication, illumination,etc.
- The Led lamp is available with different colors, intensities, epoxy colors,etc.

■ Applications :

- Audio Equipment
- Monitor
- Car meter
- Computer

■ Package Dimensions:



■ Notes :

- 1.All dimensions are in millimeters,
- 2.An epoxy meniscus may extend about 1.5mm(0.059") down to the lead.

PART NO	Chip		Lens Color
	Material	Emitted Color	
103HD	GaP	Bright Red	Red Diffused

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■ Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Forward Current	IF	15	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Power Dissipation	Pd	45	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	IF(Peak)	50	mA
Reverse Voltage	VR	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	0.63	1.00	/	mcd	IF= 10 mA
Viewing Angle	2 θ 1/2	/	90	/	deg	IF= 10 mA
Peak Wavelength	λ p	/	697	/	nm	IF= 10 mA
Dominant Wavelength	λ d	/	650	/	nm	IF= 10 mA
Spectrum Radiation Bandwidth	△ λ	/	90	/	nm	IF= 10 mA
Forward Voltage	VF	1.5	2.0	2.4	V	IF= 10 mA
Reverse Current	IR	/	/	10	u A	VR= 5 V



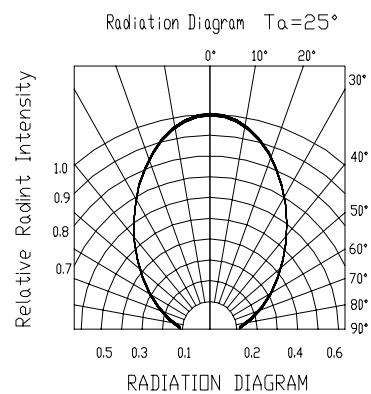
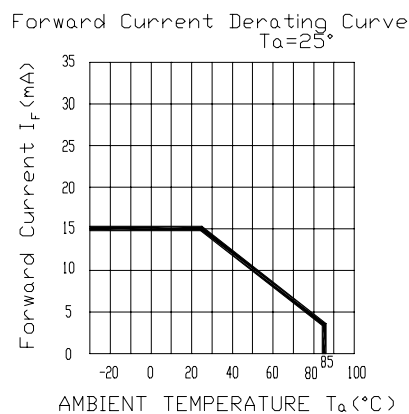
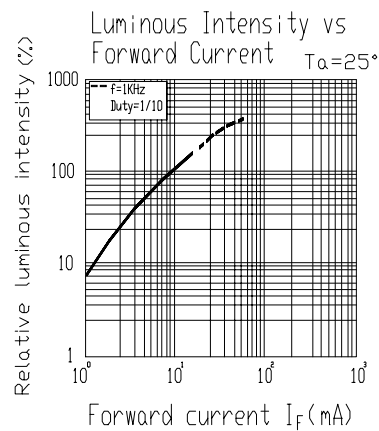
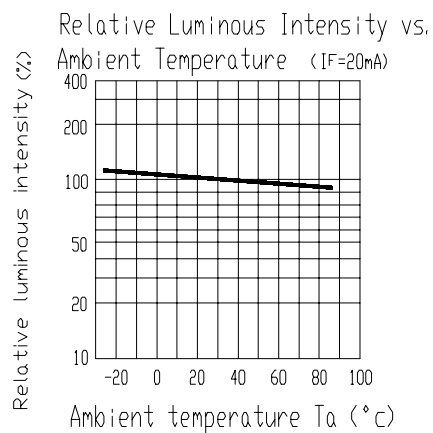
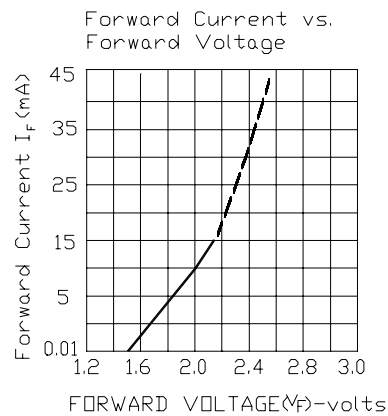
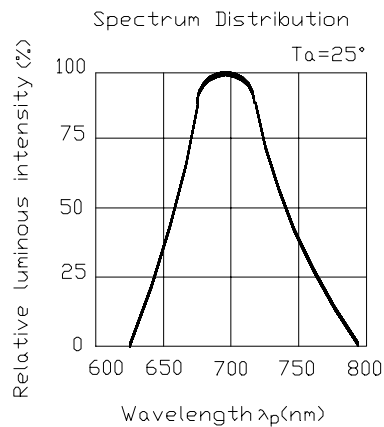
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■ Typical Electro-Optical Characteristic Curves





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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 30min └ 5 min L : -55°C 30min	50 CYCLES	76 PCS	0/1
3	Thermal Shock	H : +100°C 5min └ 10 sec L : -10°C 5min	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	TEMP : 25°C IF=10mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS	0/1