



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-020-124 REV: 1.2

3mm Round Small Flange Without stand-off LEDs, T-1

PART NO : 204HGW ECN : Page: 1/5

■ Features :

- Two chips are matched for uniform light output, wide viewing angle
- Long life-solid state reliability
- IC compatibl/Low power consuming

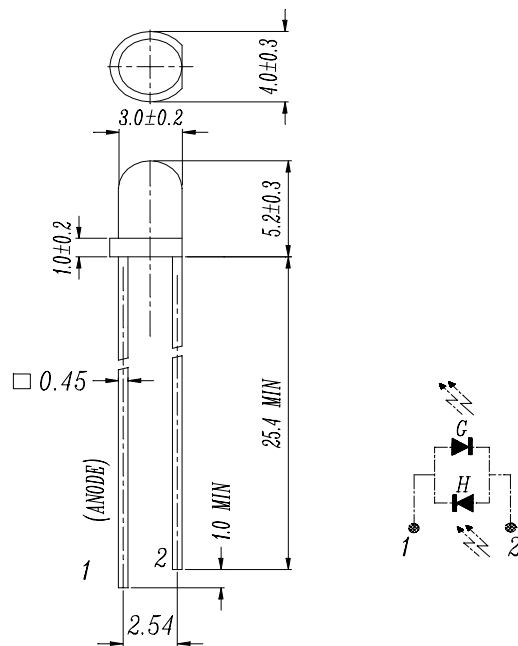
■ Descriptions :

- The 204 LED lamps contain two integral chips and is available as both bicolor and bipolsr types.
- The Bright and green Light is emitted by diodes of GaP and GaP respectively.
- Type of bipolar lamps are both white diffused and color diffused while the bicolor are white diffused.

■ Applications :

- TV set
- Monitor
- Telephone
- 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.
- 3.Tolerances unless dimension ± 0.25 mm.

PART NO	Chip		Lens Color
	Material	Emitted Color	
204HGW	GaP	Bright	White Diffused
	GaP	Green	

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>



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-020-124 REV: 1.2

3mm Round Small Flange Without stand-off LEDs, T-1

PART NO : 204HGW ECN : Page: 2/5

■ Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Forward Current	IF	H 15	mA
		G 30	
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Power Dissipation	Pd	H 45	mW
		G 100	
Peak Forward Current (Duty 1/10 @ 1KHz)	IF(Peak)	H 50	mA
		G 160	
Reverse Voltage	VR	5	V

■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	H 0.4	1.0	/	mcd	IF= 10 mA
		G 1.1	4.5	/		
Viewing Angle	2 θ 1/2	/	75	/	deg	IF= 20 mA
Peak Wavelength	λ p	H /	697	/	nm	IF= 10 mA
		G /	565	/		IF= 20 mA
Dominant Wavelength	λ d	H /	650	/	nm	IF= 10 mA
		G /	570	/		IF= 20 mA
Spectrum Radiation Bandwidth	△ λ	H /	90	/	nm	IF= 10 mA
		G /	30	/		IF= 20 mA
Forward Voltage	VF	H 1.5	2.0	2.4	V	IF= 10 mA
		G 1.7	2.1	2.4		IF= 20 mA
Reverse Current	IR	/	/	10	μ A	VR= 5 V



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-020-124

REV: 1.2

3mm Round Small Flange Without stand-off LEDs, T-1

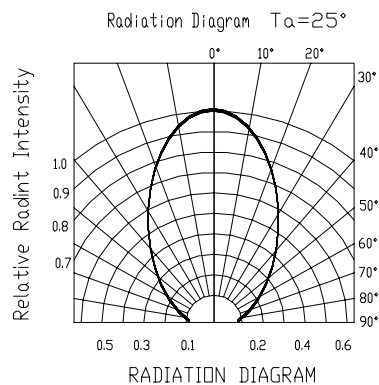
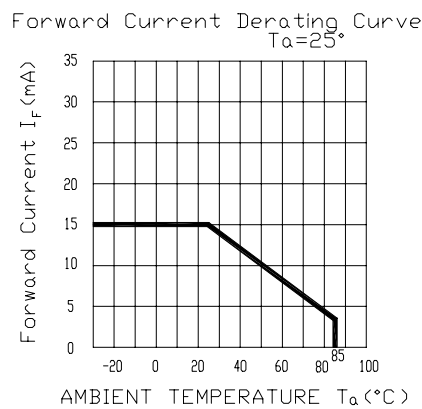
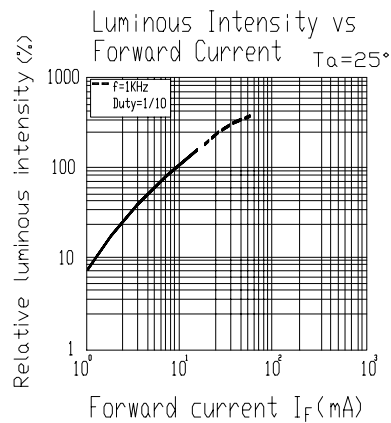
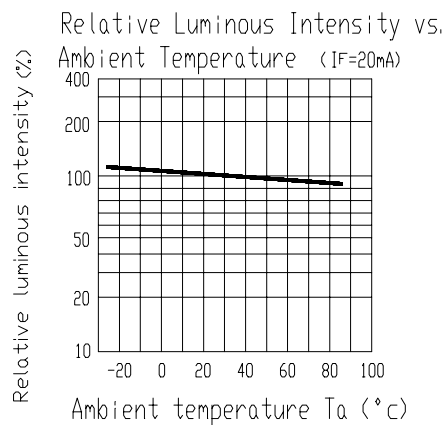
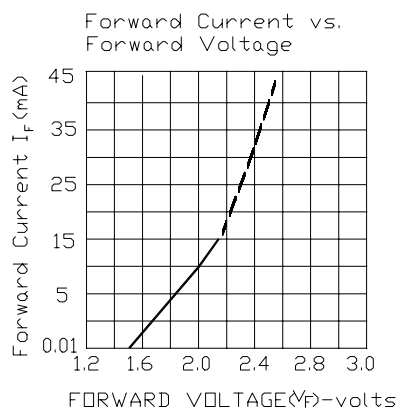
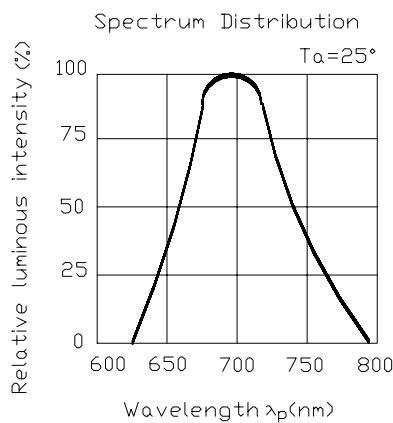
PART NO. : 204HGW

ECN :

Page: 3/5

■ Typical Electro-Optical Characteristic Curves

H





EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-020-124

REV: 1.2

3mm Round Small Flange Without stand-off LEDs, T-1

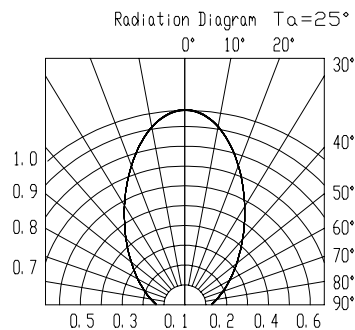
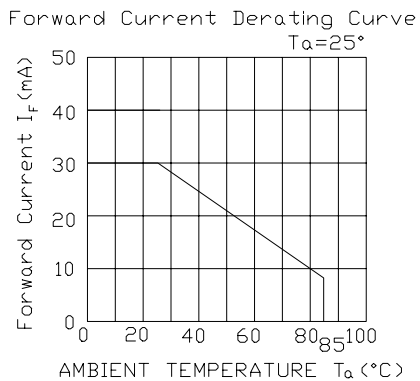
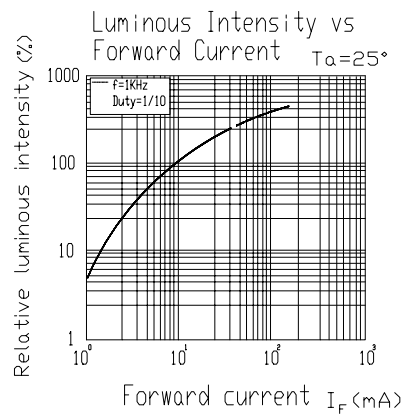
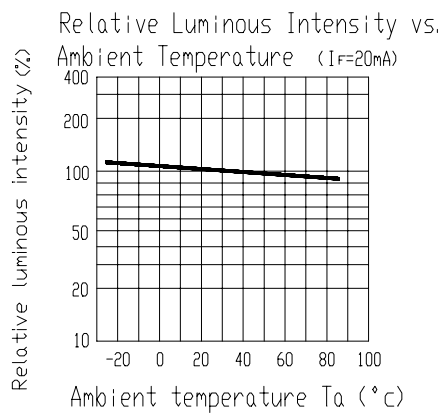
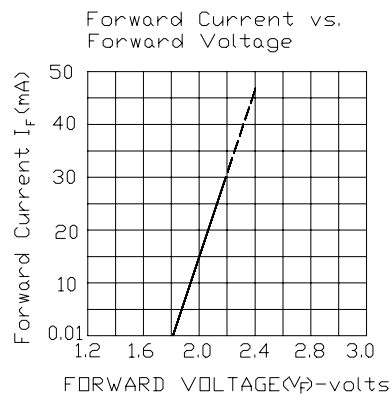
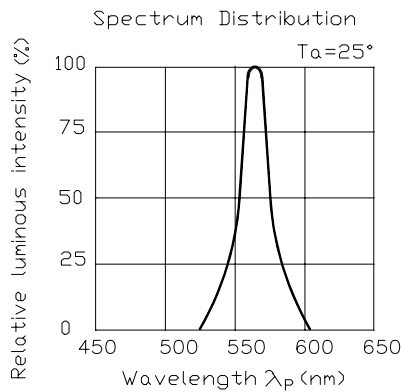
PART NO : 204HGW

ECN :

Page: 4/5

■ Typical Electro-Optical Characteristic Curves

G





EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-020-124

REV: 1.2

3mm Round Small Flange Without stand-off LEDs, T-1

PART NO : 204HGW

ECN :

Page: 5/5

■ 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=20mA	1000 HRS	76 PCS	0/1
7	High Temperature / High Humidity	85°C/85% RH	1000 HRS	76 PCS	0/1