



EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : CDDS-151-002

REV: 2

1.5" Single Digit Displays

PART NO. : ELS-1516EGWB

ECN :

Page: 1/5

■ Features :

- Industrial standard size.
- Low power consumption.
- Categorized for luminous intensity.

■ Applications:

- Audio equipment
- Instrument panels
- Digital read out display

■ Descriptions :

- The ELS-1516 series is a large 38.1 mm (1.5")high seven segment display designed for viewing distances up to 7 meters.
- These displays provide excellent reliability in bright ambient light.
- These devices are made with white segments and black surface.

PART NO.	Chip		
	Material		Emitted Color
ELS-1516EGWB	E	GaAsP/GaP	Orange
	G	GaP	Green

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PART NO. : ELS-1516EGWBECN : Page: 3/5**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 :

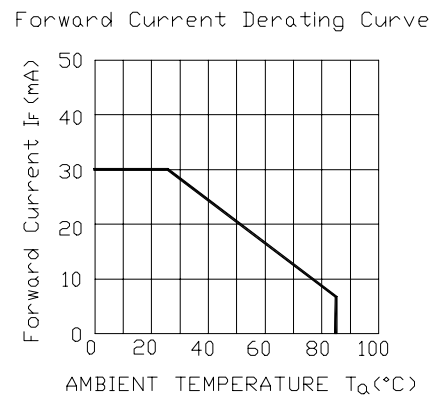
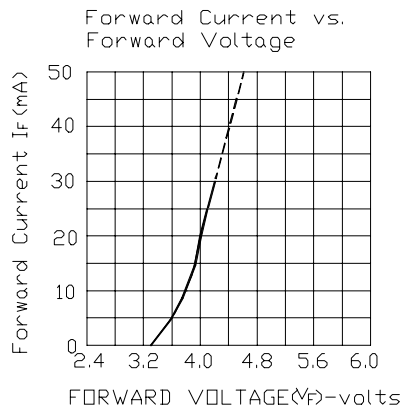
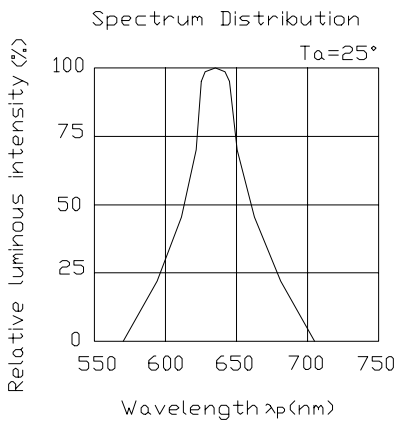
Parameter		Symbol		Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Per segment	E	IV	2.8	4.5	----	mcd	IF=10mA
		G		5.6	8.9	----		
	Per decimal point	E		1.0	1.5	----		
		G		1.8	2.5	----		
Peak Wavelength		E	λp	----	635	----	nm	IF=20mA
		G	λp	----	565	----		
Dominant Wavelength		E	λd	----	625	----	nm	IF=20mA
		G	λd	----	570	----		
Spectrum Radiation Bandwidth		E	$\Delta \lambda$	----	45	----	nm	IF=20mA
		G	$\Delta \lambda$	----	30	----		
Forward Voltage		E	VF	3.4	4.0	4.8	V	IF=20mA
		G	VF	3.4	4.2	4.8		
Reverse Current		IR		----	----	10	μA	VR=5V



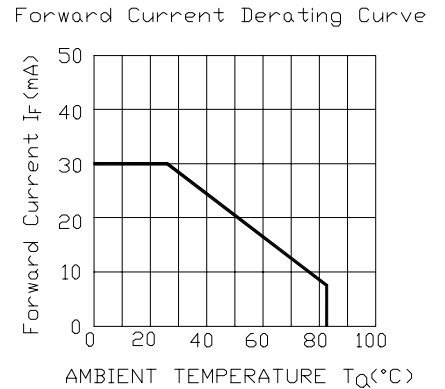
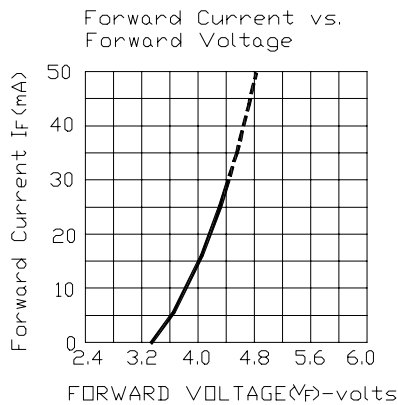
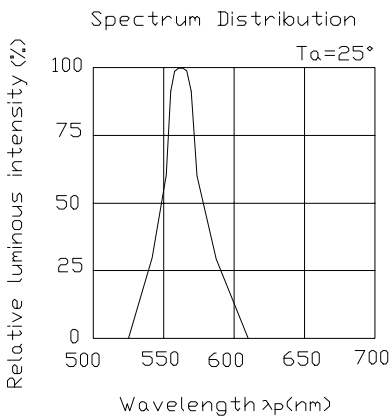
1.5" Single Digit Displays

Typical Electro-Optical Characteristic Curves:

CHIP Material:GaAsP/GaP
Emitted Color:Hi-Eff Red/Orange



GHIP Material:Gap
Emitted Color:Yellow Green





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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 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 = 10 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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