



# EVERLIGHT ELECTRONICS CO.,LTD.

## Technical Data Sheet 0.56" Quadruple Digit Displays

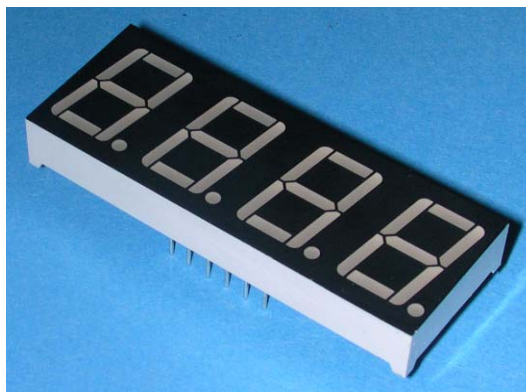
### ELF-511GWB

#### ■ Features :

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

#### ■ Descriptions :

- The ELF-511 series is a large 14.22mm (0.56")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.



#### ■ Applications :

- Audio equipment
- Instrument panels
- Digital read out display

PART NO.	Chip	
	Material	Emitted Color
ELF-511GWB	GaP	Green

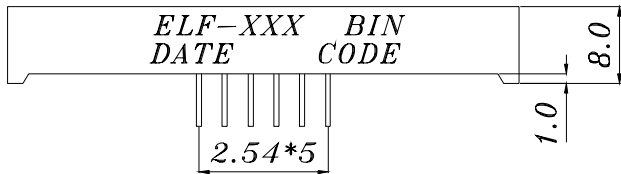
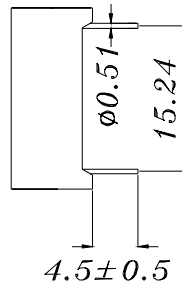
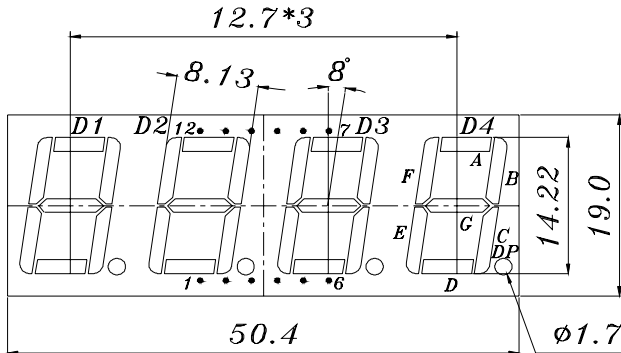


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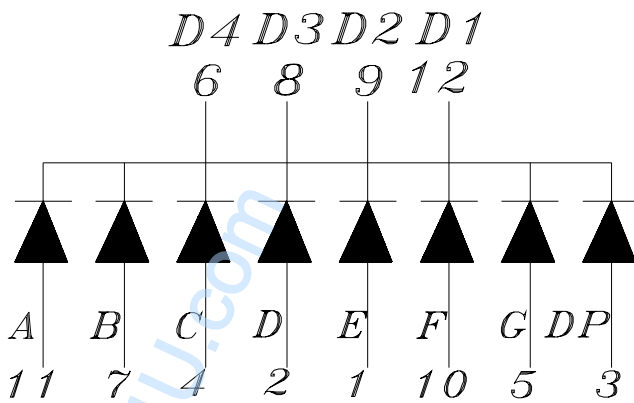
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### ELF-511GWB

#### Package Dimensions



- COMMON CATHODE*
- 1 ANODE E
  - 2 ANODE D
  - 3 ANODE DP
  - 4 ANODE C
  - 5 ANODE G
  - 6 COMMON CATHODE D4
  - 7 ANODE B
  - 8 COMMON CATHODE D3
  - 9 COMMON CATHODE D2
  - 10 ANODE F
  - 11 ANODE A
  - 12 COMMON CATHODE D1



- Notes:**
1. All dimensions are in 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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#### ELF-511GWB

■ Absolute maximum ratings at  $T_a = 25^{\circ}\text{C}$  :

Parameter	Symbol	Rating	Unit
Reverse Voltage	$V_R$	5	V
Forward Current	$I_F$	30	mA
Operating Temperature	$T_{opr}$	-40 to +85	$^{\circ}\text{C}$
Storage Temperature	$T_{stg}$	-40 to +100	$^{\circ}\text{C}$
Soldering Temperature	$T_{sol}$	$260 \pm 5$	$^{\circ}\text{C}$
Power Dissipation	$P_d$	100	mW
Peak Forward Current(Duty 1/10 @ 1KHz)	$I_F(\text{Peak})$	160	mA

■ Electronic optical characteristics :

Parameter		Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Per segment	$I_v$	1.4	3.0	----	mcd	$I_F=10\text{mA}$
	Per decimal point		0.6	1.0	----	mcd	$I_F=10\text{mA}$
Peak Wavelength		$\lambda_p$	----	565	----	nm	$I_F=20\text{mA}$
Dominant Wavelength		$\lambda_d$	----	570	----	nm	$I_F=20\text{mA}$
Spectrum Radiation Bandwidth		$\Delta\lambda$	----	30	----	nm	$I_F=20\text{mA}$
Forward Voltage		$V_F$	1.7	2.1	2.4	V	$I_F=20\text{mA}$
Reverse Current		$I_R$	----	----	10	$\mu\text{A}$	$V_R=5\text{V}$



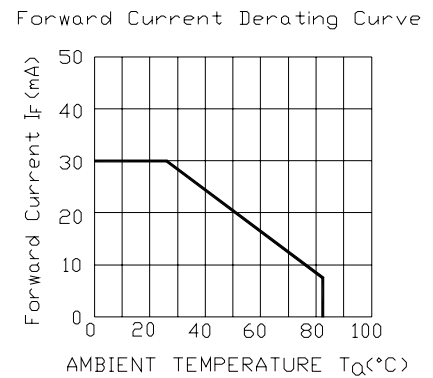
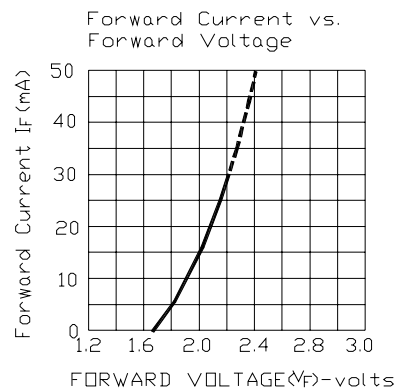
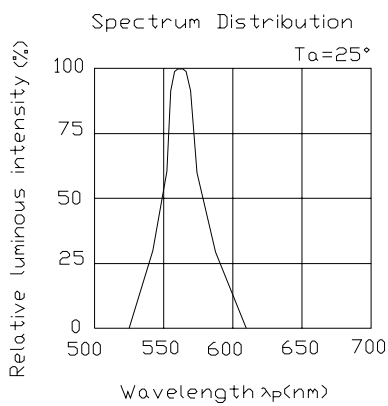
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### 0.56" Quadruple Digit Displays

### ELF-511GWB

#### ■ Typical Electro-Optical Characteristic Curves:

GHIP Material:Gap  
Emitted Color:Yellow Green




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**0.56" Quadruple Digit Displays**
**ELF-511GWB**
**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