



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DDS-400-002 REV: 1.1

## 4.0" Single Digit Displays

PART NO. : ELS-4005SRDB 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-4005 series is a large 101.2mm (4.0")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 red segments and black surface.

PART NO.	Chip	
	Material	Emitted Color
ELS-4005SRDB	GaAlAs	Super Red

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■ Absolute maximum ratings at Ta = 25°C :

Parameter	Symbol	Rating	Unit
Reverse Voltage	VR	5	V
Forward Current	IF	40	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Power Dissipation	Pd	110	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	----	----	----	mcd	IF=10mA
	Per decimal point		----	----	----		
Peak Wavelength		$\lambda p$	----	660	----	nm	IF=20mA
Dominant Wavelength		$\lambda d$	----	643	----	nm	IF=20mA
Spectrum Radiation	Bandwidth	$\Delta \lambda$	----	20	----	nm	IF=20mA
Forward Voltage		VF	6.0	6.8	9.6	V	IF=20mA
Reverse Current		IR	----	----	10	$\mu A$	VR=5V

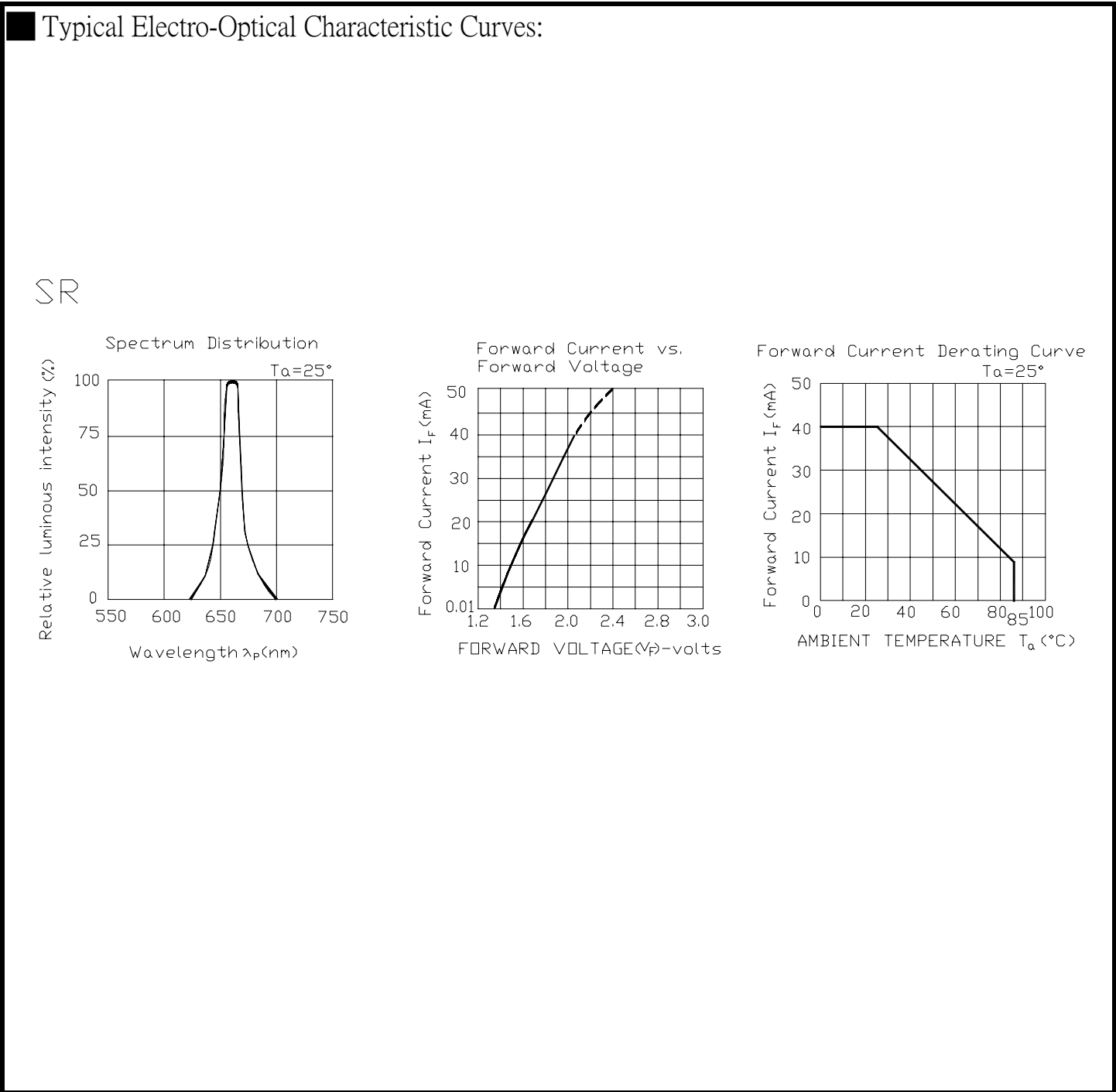


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■ Reliability test items and conditions:

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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