



# EVERLIGHT ELECTRONICS CO.,LTD.

Device Number : DLE-416-009 REV: 1.0

φ 5mm(T-1 3/4) Tower Type LED Lamps

MODEL NO : 4165-1UYD/S400-A5/S893 ECN : \_\_\_\_\_ Page: 1/4

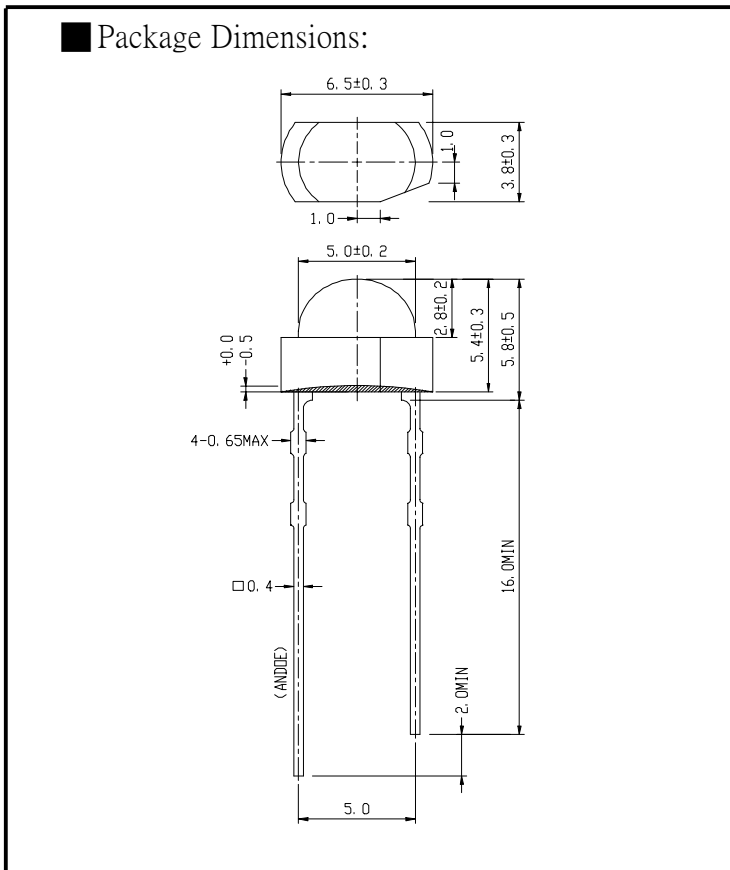
### Features :

- φ 5mm(T- 3/4)towr type all resin mold.
- Low power consumption.
- 5.0mm(0.196inch) lead spacing.
- Available on tape and reel.

### Descriptions :

- The series is specially designed for applications requiring higher brightness
- The LED lamps are available with different colors,intensities, epoxy colors, etc.

### Package Dimensions:



### Applications :

- TV Set
- Monitor
- Telephone
- Computer

### Notes :

- 1.All dimensions are in millimeters.
- 2.An epoxy meniscus may extend about +0.0/-0.5 down to the lead.

PART NO	Chip		Lens Color
	Material	Emitted Color	
4165-1UYD/S400-A5/S893	AlGaInP	Super Yellow	Yellow Diffused

C89040941

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## ■ Absolute Maximum Ratings at Ta = 25°C

Parameter	Symbol	Rating	Unit
Forward Current	If	50	mA
Operating Temperature	Topr	-40 to +85	°C
Storage Temperature	Tstg	-40 to +100	°C
Soldering Temperature	Tsol	260 ± 5	°C
Electrostatic Discharge	ESD	2000	V
Power Dissipation	Pd	120	mW
Peak Forward Current(Duty 1/10 @ 1KHZ)	If(Peak)	200	mA
Reverse Voltage	Vr	5	V

## ■ Electronic Optical Characteristics :

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Luminous Intensity	Iv	63	100	----	mcd	If=15mA
Luminous Intensity	Iv	4.0	6.3	----	mcd	If=2mA
Viewing Angle	2 $\theta$ 1/2	----	90	----	deg	If=20mA
Peak Wavelength	$\lambda$ p	----	591	----	nm	If=20mA
Dominant Wavelength	$\lambda$ d	-----	589	-----	nm	If=20mA
Spectrum Radiation Bandwidth	$\Delta \lambda$	----	15	----	nm	If=20mA
Forward Voltage	Vf	----	2.0	2.4	V	If=20mA
Reverse Current	Ir	----	----	10	$\mu$ A	Vr=5V

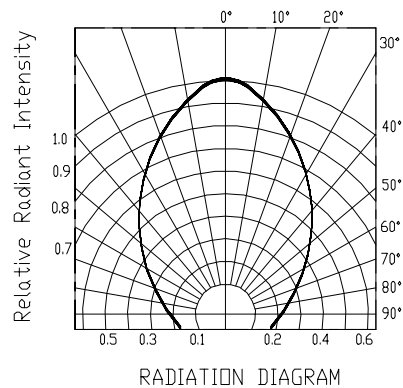
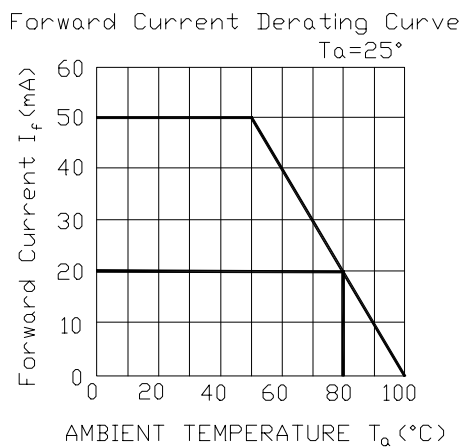
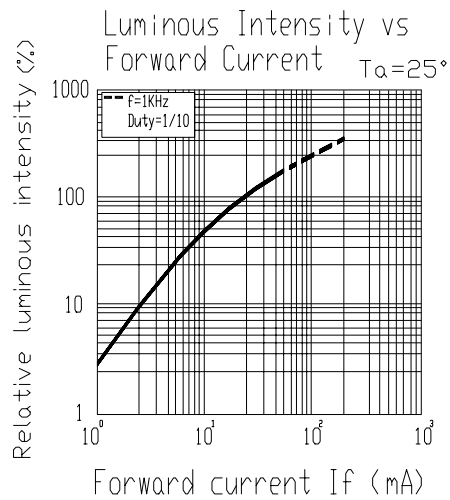
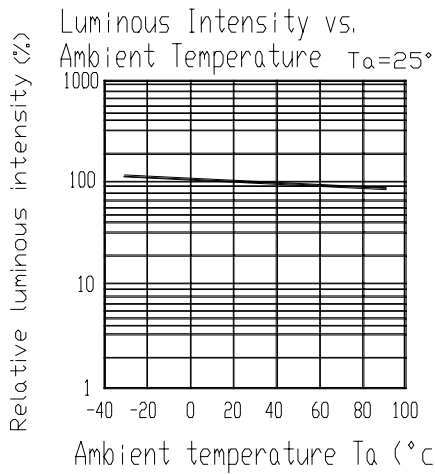
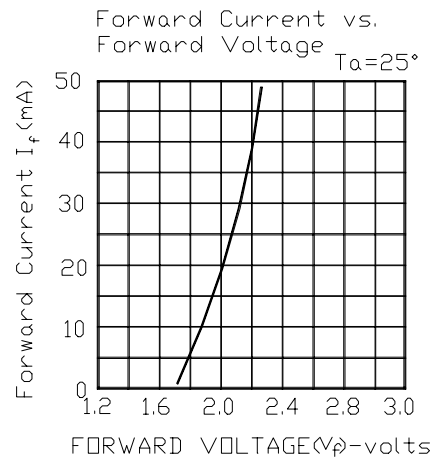
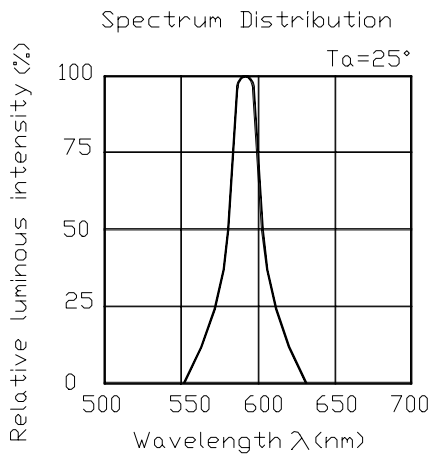


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■ Typical Electro-Optical Characteristic Curves





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