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# Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









# Technical Data Sheet 5.0 mm Round LED (T-1 3/4)

# 3384-15UTC/S400-X10

#### **Features**

- Popular T-1 colorless 5mm package.
- High luminous power.
- Typical chromaticity coordinates x=0.29, y=0.28 according to CIE1931.
- Bulk, available taped on reel.
- Pb free.
- The product itself will remain within RoHS compliant version.



## **Descriptions**

- The series is designed for application required high luminous intensity.
- The phosphor filled in the reflector converts the blue emission of InGaN chip to ideal white.

#### **Applications**

- Outdoor Displays
- Optical Indicators
- Backlighting
- Marker Lights

#### **Device Selection Guide**

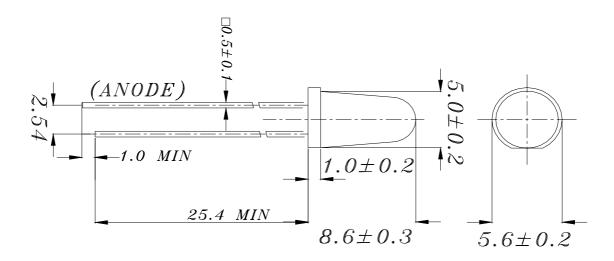
PART NO.	Cl	Lens Color		
FARI NO.	Material	<b>Emitted Color</b>	Lens Color	
3384-15UTC/S400-X10	InGaN/Sapphire	White	Water Clear	

Everlight Electronics Co., Ltd. http://www.everlight.com Rev: 1 Page: 1 of 6

Device Number: DLE-0000359 Established date: 2008/11/18 Established by: Senajun



## **Package Dimensions**



#### **Notes:**

- 1.All dimensions are in millimeters, and tolerance is 0.25mm except being specified.
- 2.Lead spacing is measured where the lead emerges from the package.
- 3. Protruded resin under flange is 1.5mm Max. LED.

## Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Continuous Forward Current	$I_{\mathrm{F}}$	25	mA
Reverse Voltage	$V_R$	5	V
Operating Temperature	$T_{opr}$	<b>-</b> 30 ∼ +85	$^{\circ}\!\mathbb{C}$
Storage Temperature	$T_{ m stg}$	<b>-40</b> ∼ +100	$^{\circ}\!\mathbb{C}$
Soldering Temperature (T=5 sec)	$T_{sol}$	$260 \pm 5$	$^{\circ}\!\mathbb{C}$
Power Dissipation	$P_d$	110	mW
Electrostatic Discharge	ESD	150	V

Everlight Electronics Co., Ltd. http://www.everlight.com Rev: 1 Page: 2 of 6

Device Number: DLE-0000359 Established date: 2008/11/18 Established by: Senajun



# **Electro-Optical Characteristics (Ta=25℃)**

Parameter	Symbol	Condition	Min.	Тур.	Max.	Units
Forward Voltage	$V_{\scriptscriptstyle F}$	I <sub>F</sub> =20mA		3.2	4.0	V
Reverse Current	$I_R$	$V_R=5V$			50	uA
Luminous Intensity	$I_{V}$	I <sub>F</sub> =20mA	8000	10000		med
Viewing Angle	$2\theta_{1/2}$	I <sub>F</sub> =20mA		20		deg
Chromaticity	X	I <sub>F</sub> =20mA		0.29		
Coordinates	y			0.28		

## Luminous Intensity Combination (mcd at 20mA)

I <sub>V</sub> Ranks	Z1 Z2		<b>Z</b> 3	
Min.	8000	10000	13000	
Max.	10000	13000	17000	

Measurement Uncertainty of Luminous Intensity: ±15%

# Forward Voltage Combination (V at 20mA)

V <sub>F</sub> Ranks	1	2	3	4	5
Min.	3.0	3.2	3.4	3.6	3.8
Max.	3.2	3.4	3.6	3.8	4.0

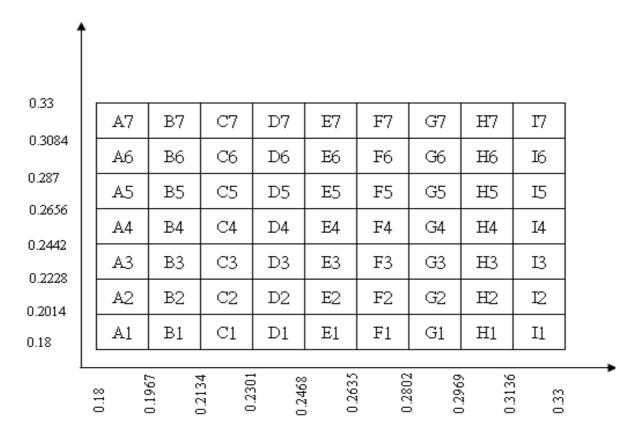
Measurement Uncertainty of Forward Voltage: ±0.05V

Everlight Electronics Co., Ltd. http://www.everlight.com Rev: 1 Page: 3 of 6

Device Number: DLE-0000359 Established date: 2008/11/18 Established by: Senajun



## CIE Chromaticity Diagram ( $I_F=20mA$ , $Ta=25^{\circ}C$ )



Measurement uncertainty of the color coordinates :  $\pm 0.01$ 

#### Note:

1. The setting and inspection for this device please flow the area of x y chromaticity diagram.

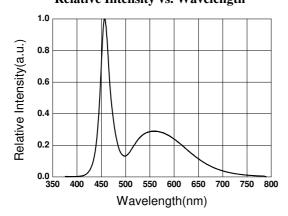
2. Take the upper and lower point for x-axis and y-axis and then put it same parts, x-axis divide into 9 section, y-axis divide into 7 section, total is 63 bins.

Everlight Electronics Co., Ltd. http://www.everlight.com Rev: 1 Page: 4 of 6
Device Number: DLE-0000359 Established date: 2008/11/18 Established by: Senajun

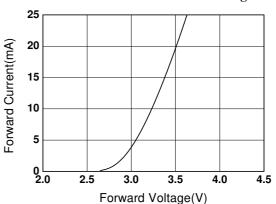


### **Typical Electro-Optical Characteristics Curves**

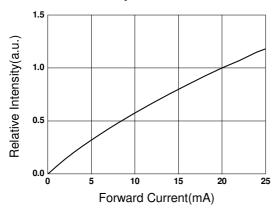
Relative Intensity vs. Wavelength



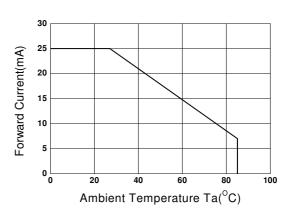
Forward Current vs. Forward Voltage



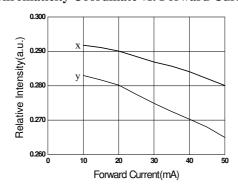
**Relative Intensity vs. Forward Current** 



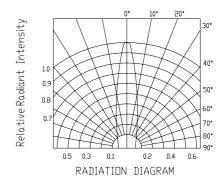
Forward Current vs. Ambient Temp.



**Chromaticity Coordinate vs. Forward Current** 



Relative Intensity vs. Angle Dispacemen



Everlight Electronics Co., Ltd. Device Number: DLE-0000359

http://www.everlight.com

Rev: 1

Page:

5 of 6

Established date: 2008/11/18 Established by:

Senajun



#### **Label Form Specification**



CPN: Customer's Production Number

P/N: Production Number QTY: Packing Quantity CAT: IV&VF Rank HUE: Color Rank

REF: Reference

LOT No: Lot Number

#### **Notes**

- 1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
- 2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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EVERLIGHT ELECTRONICS CO., LTD. Tel: 886-2-2267-2000, 2267-9936

Office: No 25, Lane 76, Sec 3, Chung Yang Rd, Fax: 886-2267-6244, 2267-6189, 2267-6306

Tucheng. Tainei 236. Taiwan. R.O.C http://www.everlight.com

Everlight Electronics Co., Ltd. http://www.everlight.com Rev: 1 Page: 6 of 6

Device Number: DLE-0000359 Established date: 2008/11/18 Established by: Senajun