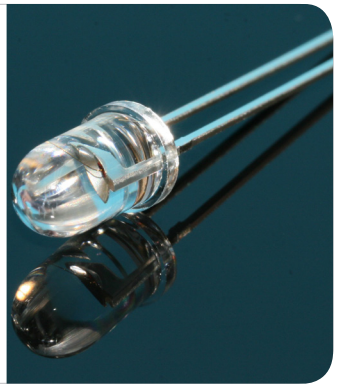
Marktech Optoelectronics

Ultra Violet LED

Product No: **MT5400-UV**

Peak Emission Wavelength: 395-405nm

The MT5400-UV is a UV T 1 3/4, 5mm water clear LED designed for applications requiring high brightness and high reliability packaged with straight leads.



FEATURES

> High Brightness
> High Reliability
> Water Clear with Flange
> Housing without Standoff Leads

APPLICATIONS

> Currency Validation
> Driver License & Passport Identification
> Medical & Analytical Instruments
> Fluorescence

Absolute Maximum Ratings (Ta=25°C)

RoHS

ITEMS	SYMBOL	RATINGS	UNIT
Forward Current	IF	30	mA
Peak Forward Current*1	IFP	100	mA
Power Dissipation	PD	120	mW
Operating Temperature Range	Topr	-40 ~ +85	°C
Storage Temperature Range	Tstg	-40 ~ +100	°C
Lead Soldering Temperature*2	Tls	260	°C

*1: Test Conditions: 1/10 duty cycle @ 1KHz. *2: Time 5 Sec max, Position: Up to 3mm from the body.

Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MIN	TYP	MAX	UNIT
Forward Voltage	VF	IF=20mA	--	3.2	3.8	V
Reverse Voltage	VR	IR=10μA	5	--	--	V
Peak Emission Wavelength	λp	IF=20mA	395	400	405	nm
Viewing Angle *	Θ	IF=20mA	--	30	--	deg.
Spectral Bandwidth at 50%	$\Delta\lambda_{0.5}$	IF=20mA	--	30	--	nm
Dominant Wavelength	λD	IF=20mA	400	410	420	nm
Lumious Intensity	IV	IF=20mA	20	30	--	mcd

*1: Tolerance of Viewing Angle:-10/+5deg.

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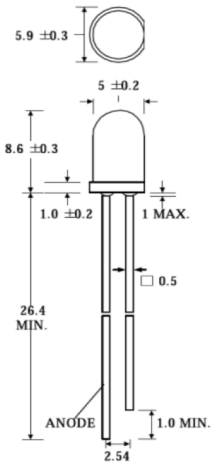
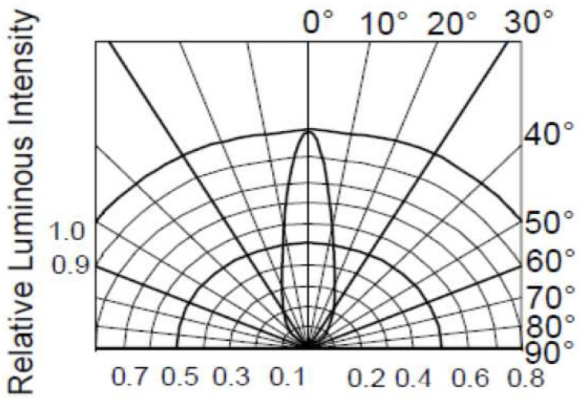
RADIATION	TYPE	CASE
Ultra Violet	InGaN/SiC	5mm Plastic Lens



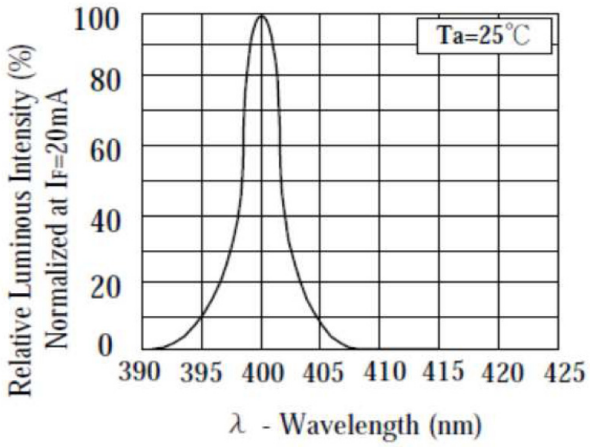
Notes:

1: Unit: mm

2. Lead spacing is measured where the lead emerge from the package.



RADIATION DIAGRAM



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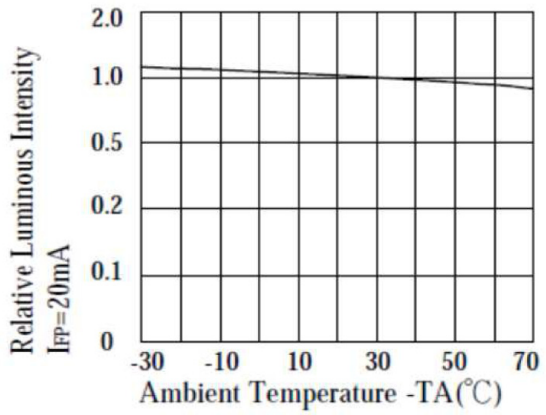
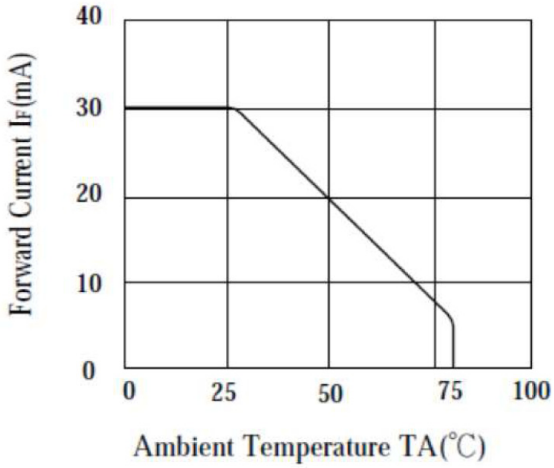
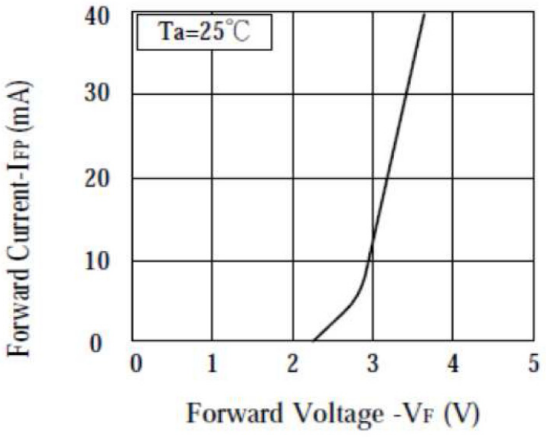


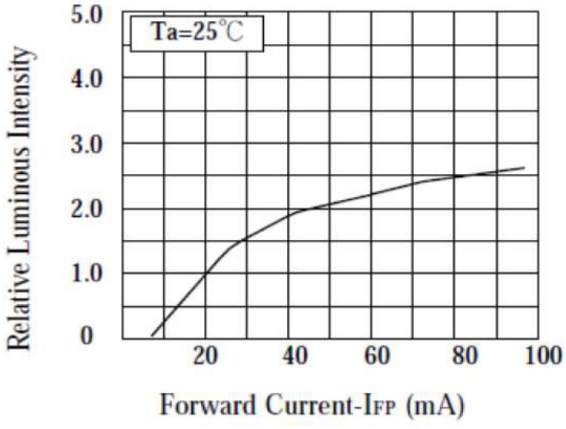
LUMINOUS INTENSITY Vs. AMBIENT TEMPERATURE



MAX FORWARD CURRENT Vs. AMBIENT TEMPERATURE



FORWARD CURRENT Vs. FORWARD VOLTAGE



LUMINOUS INTENSITY Vs. FORWARD CURRENT

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CAUTION

1. LEDs emit very strong UV radiation during operation.
2. Don't look directly into the LED light when in operation as UV radiation can harm your eyes.
3. To prevent even inadequate exposure, wear protective eyewear.
4. If LEDs are embedded in devices, please indicate warning labels against the UV LED used.
5. Avoid prolonged exposure to skin or other tissue during operation.
6. Keep out of reach of children.
7. Take appropriate precautions around pets and other living organisms to avoid UV exposure.
8. Specification and dimension are subject to change without notice.