Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

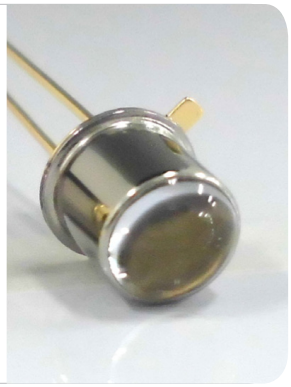
Marktech Optoelectronics

Ultraviolet Emitter

Product No: **MTE-H21 Series**

Peak Emission Wavelength: 310nm, 325nm, 340nm

The MTE-H21 series UV emitter is a specifically designed for applications requiring high radiant power output and accuracy in a TO-46 hermetically sealed package with a special UV glass lens for optimum life time and device performance. Custom package solutions and sorting are available.



FEATURES

> Hermetically Sealed TO-46
> High Reliability
> Narrow Viewing Angle

APPLICATIONS

> UV Curing / Light Therapy
> Drug Discovery / Optical Sensor
> DNA / Protein Analysis

Absolute Maximum Ratings (Ta=25°C)

ITEMS	SYMBOL	RATINGS	UNIT
Forward Current	IF	40	mA
Operating Temperature	Topr	-30 ~ +80	°C
Storage Temperature	Tstg	-40 ~ +100	°C
Soldering Temperature*1	Tsol	300	°C

*1: Within 5 seconds.

Electrical & Optical Characteristics (Ta = 25°C)

ITEMS	SYMBOL	CONDITIONS	MTE310H21-UV	MTE325H21-UV	MTE340H21-UV	UNIT
Peak Wavelength	λp	IF=20mA	310±5	325±5	340±5	nm
Power Output	PO	IF=20mA	0.6	0.8	0.8	mW
Spectral Line Half Width	Δλ	IF=20mA	10	9	9	nm
Forward Voltage	VF	IF=20mA	6.5	5	4	V
Viewing Angle	$2\Theta_{1/2}$	IF=20mA	24	24	24	deg
Rise Time*1	Tr	--	16	20	12	ns
Fall Time*1	Tf	--	8	9	8	ns

*1: Test Condition: Frequency=100KHz, duty=1%, Ifp=200mA

2014-02-01

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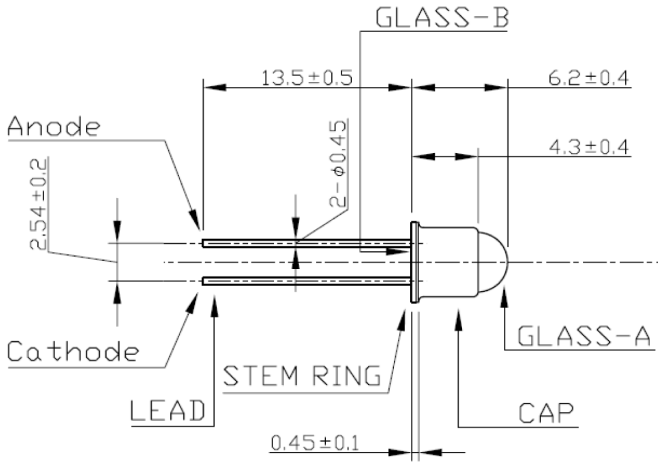
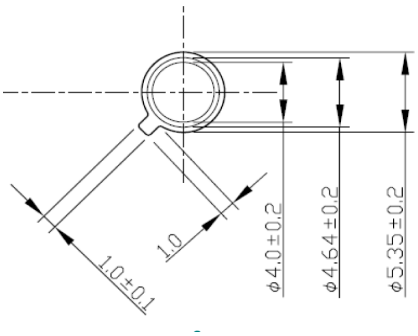
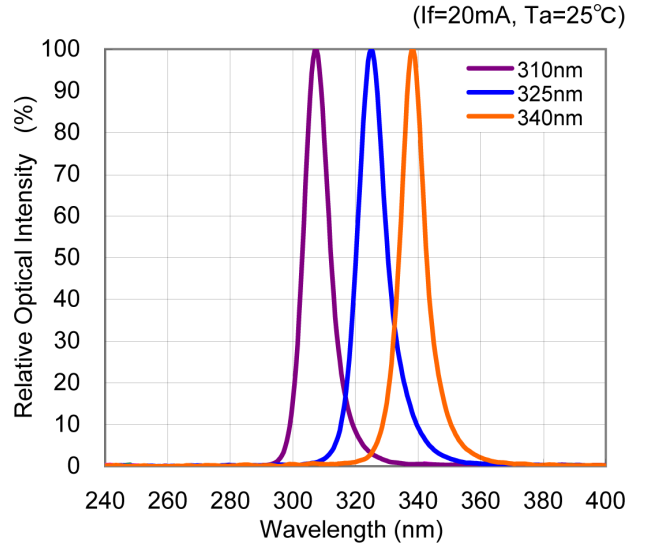
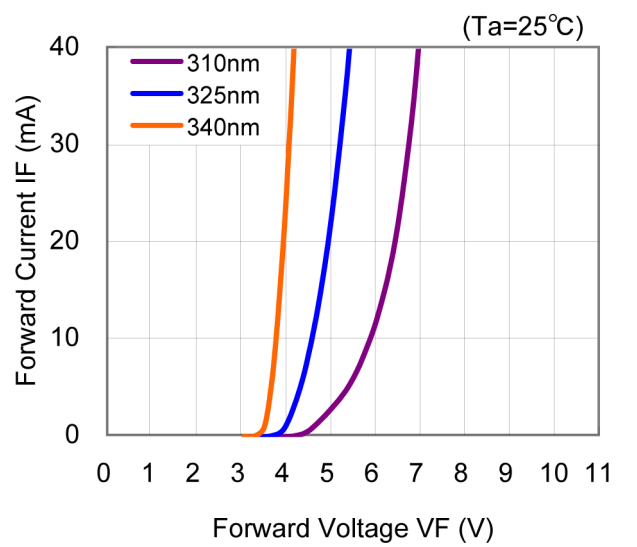


	ITEM	MATERIALS
1	GLASS-A	UV-GLASS
2	CAP	KOVAR, Ni Plating
3	STEM RING	KOVAR, Au Plating
4	GLASS-B	Hard Glass (Black)
5	LEAD	KOVAR, Au Plating







Unit: mm, Tolerance: ±0.2

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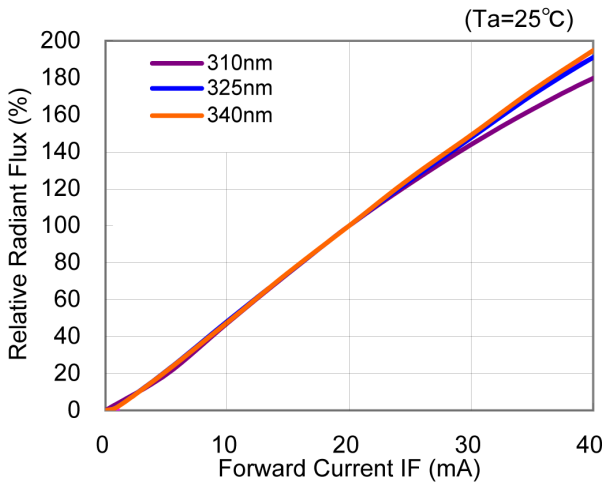
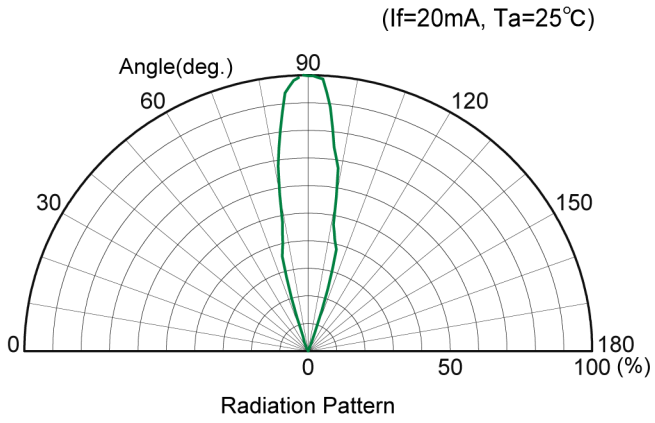
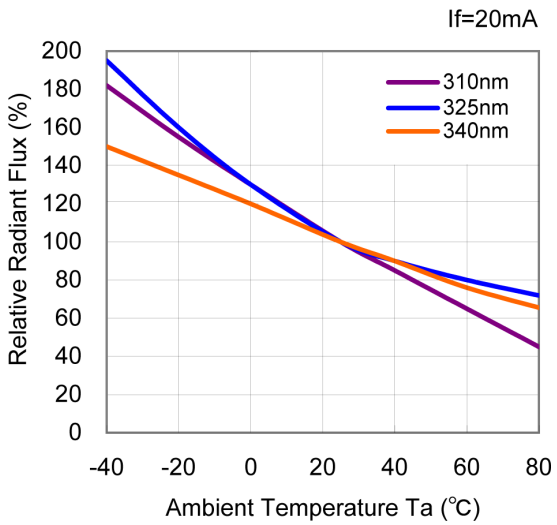
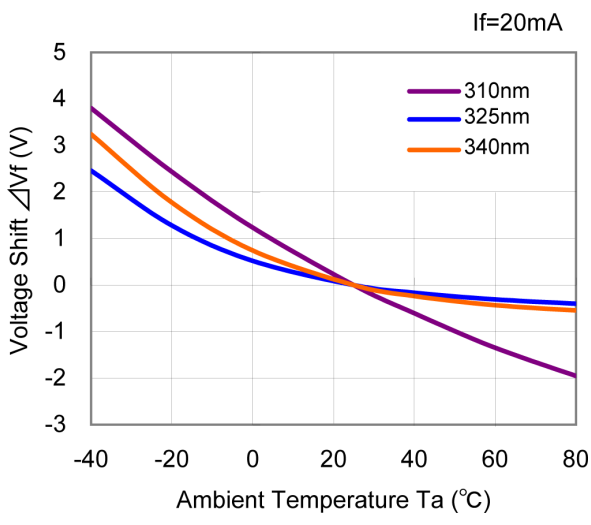
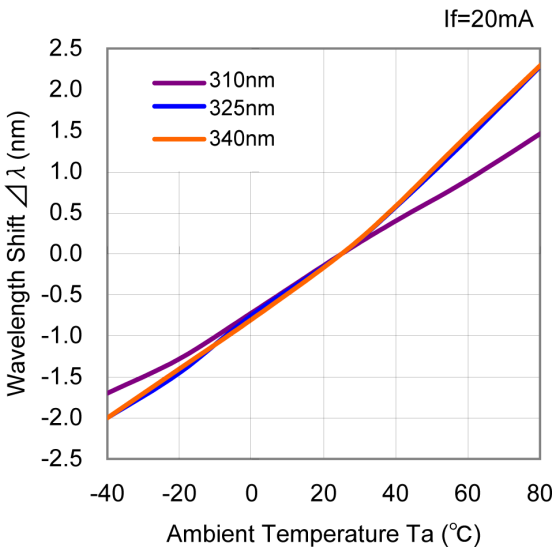

(Ta=25℃)
310nm
325nm
340nm
Relative Radiant Flux (%)
200
180
160
140
120
100
80
60
40
20
0
0
10
20
30
40
Forward Current IF (mA)

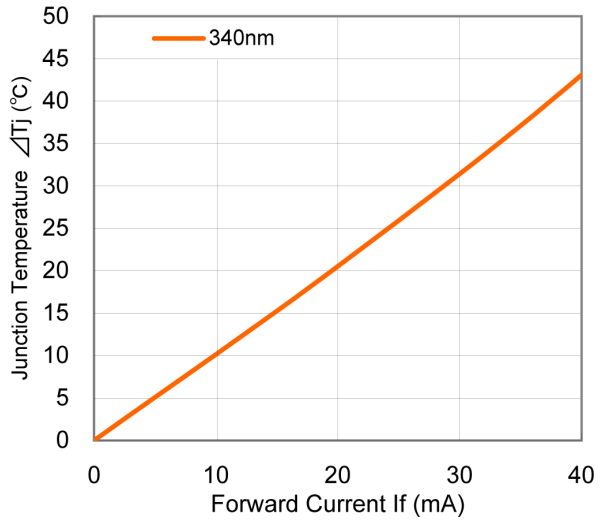

(If=20mA, Ta=25℃)
Angle(deg.)
90
60
120
30
150
0
180
0
50
100 (%)
Radiation Pattern


If=20mA
310nm
325nm
340nm
Relative Radiant Flux (%)
200
180
160
140
120
100
80
60
40
20
0
-40
-20
0
20
40
60
80
Ambient Temperature Ta (℃)


If=20mA
310nm
325nm
340nm
Voltage Shift ⊿Vf (V)
5
4
3
2
1
0
-1
-2
-3
-40
-20
0
20
40
60
80
Ambient Temperature Ta (℃)

2014-02-01





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.