

**Series 400 – Ceramics UV-LED**

**OCU-400 UC375, OCU-400 UB365, OCU-400 UB355**

preliminary

**Features**

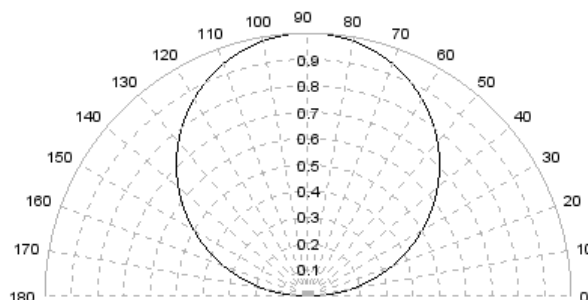
- package 1108
- size 3.0(L) x 2.0(W) x 1.0(H) mm
- circuit substrate: Al<sub>2</sub>O<sub>3</sub> Ceramics
- encapsulation: Silicone
- devices are ROHS conform
- lead free solderable. soldering pads: gold plated
- taped in 8 mm blister tape.
- cathode to transporting perforation
- all devices sorted into luminous intensity classes
- taping: face-up (T)
- view angle 120°



**Electro-Optical Characteristics**

Measured at 20mA, T<sub>a</sub> = 25°C

Parameter	Symbol	Type	Values			Unit
			min	typ	max	
Forward Voltage	V <sub>F</sub>	OCU-400 UC375 OCU-400 UB365 OCU-400 UB355	3.2	3.6	4.2	V
Peak Wavelength	λ <sub>p</sub>	OCU-400 UC375 OCU-400 UB365 OCU-400 UB355	375 363 353	-	380 370 360	nm
Spectral Width	Δλ	OCU-400 UC375 OCU-400 UB365 OCU-400 UB355	-	12 15 15	-	nm
Radiant intensity	I <sub>e</sub>	OCU-400 UC375 OCU-400 UB365 OCU-400 UB355	2.2 0.3 0.3	2.0 0.5 0.4	-	mW/sr

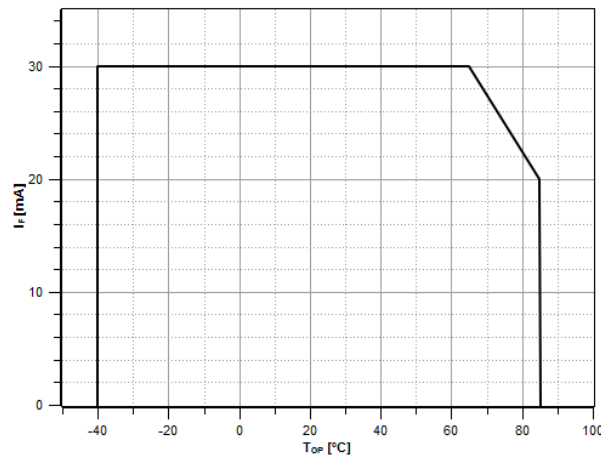


## Absolute Maximum Ratings

Parameter	Symbol	Values		Unit
		min	max	
Forward Current	$I_{F,max}$		20	mA
Forward Current, pulsed $t_p \leq 100\mu s, \tau = 1:10$	$I_{F,p}$		30	mA
Reverse Voltage	$V_R$		5	V
Reverse Current	$I_R$		10	$\mu A$
Thermal Resistance	$R_{thJA}$		60	K/W
Operating Temperature	$T_{Op}$	-40	+85	$^{\circ}C$
Storage Temperature	$T_{St}$	-40	+85	$^{\circ}C$

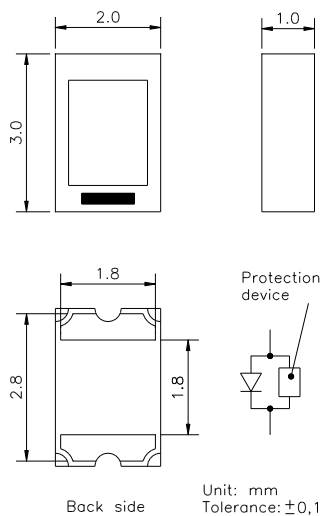
electrostatic discharge classification (MIL-STD-883E)

class 1

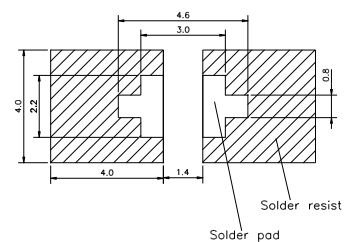


Maximal forward current (DC) characteristic

## Outline Drawing

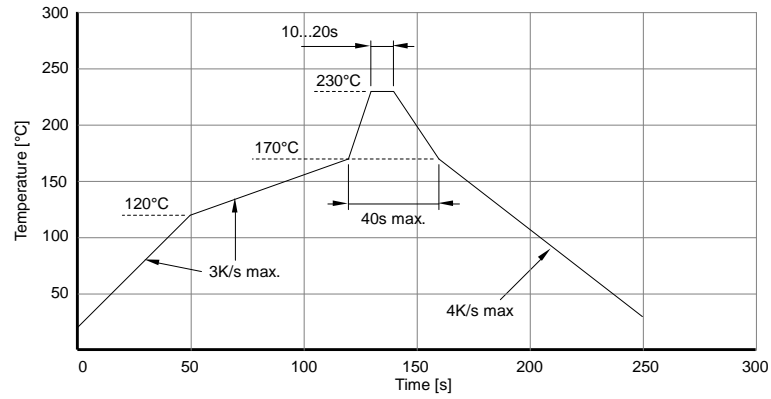


## Recommended Soldering Patterns

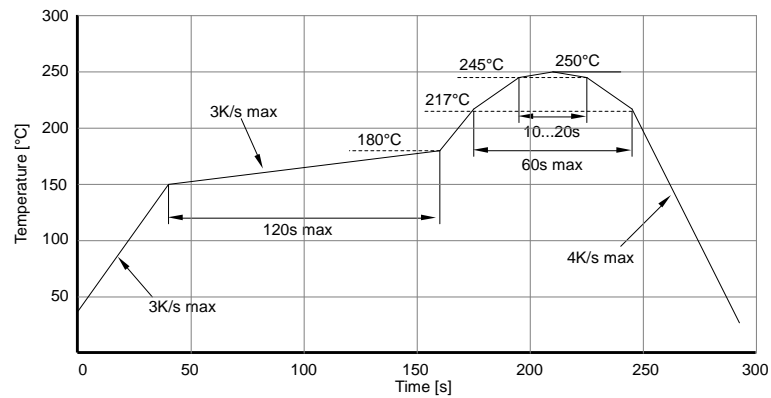


## Marking at cathode

## Soldering Conditions



IR reflow  
soldering  
profile



IR reflow  
soldering  
profile for lead  
free soldering

Manual soldering: max power of iron 25W/ 3s/ 300°C

## Ordering Code For Parts

Series	Color	Encapsulation	Packaging
OCU-400	???????	X	T
			T - taped
		X - uncolored clear	

Type definition, e.g. OCU-400 UB355-X –T

## LED Luminous Intensity Groups And Subgroups [ mW/sr ]

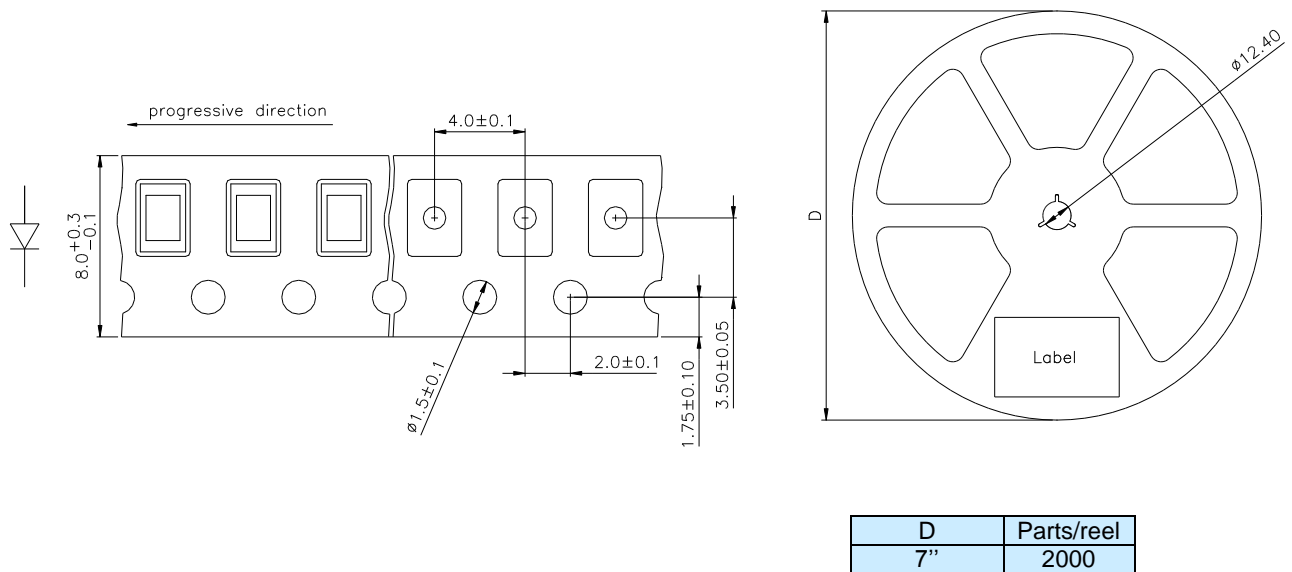
(general information – not this device specific)

C:	0.28	-	0.45	C1:	0.28	-	0.36
				C2:	0.36	-	0.45
D:	0.45	-	0.71	D1:	0.45	-	0.56
				D2:	0.56	-	0.71
E:	0.71	-	1.12	E1:	0.71	-	0.90
				E2:	0.90	-	1.12
F:	1.12	-	1.80	F1:	1.12	-	1.40
				F2:	1.40	-	1.80
G:	1.80	-	2.80	G1:	1.80	-	2.24
				G2:	2.24	-	2.80
H:	2.80	-	4.50	H1:	2.80	-	3.55
				H2:	3.55	-	4.50
J:	4.50	-	7.10	J1:	4.50	-	5.60
				J2:	5.60	-	7.10
K:	7.10	-	11.20	K1:	7.10	-	9.00
				K2:	9.00	-	11.20
L:	11.20	-	18.00	L1:	11.20	-	14.00
				L2:	14.00	-	18.00
M:	18	-	28	M1:	18.00	-	22.40
				M2:	22.40	-	28.00
N:	28	-	45	N1:	28.00	-	35.50
				N2:	35.50	-	45.00

**Measured according to CIE 127. All SMD-LEDs are 100% measured and selected on full automated equipment with an accuracy of ± 11 %.**

**Special service: Brightness selection in sub selections possible.  
Color selection in 3 sub selections possible (each subgroup per reel).**

## Tape And Reel Packing



**Packing:** The reel is sealed in special plastic bag with integrate ESD protection ( MIL - STD 81705 ) including a silica dry-pack  
 MSL level acc. to IPC/JEDEC J-STD 020D:  
 Level 2 for Europe  
 Level 2a for all other countries

### Label

Order No.	XXXXXXXXXX	Customer order No.
Type	OCU-400 ?????-??-T	
Intensity group	ZZ	Color class: CC
Charge No.	1122-AAAAAA	11 Week – 22 year – A internal identification
Quantity	9999	

### Attention please:

The information describes the type of component and shall not considered as assured characteristics. Terms of delivery and rights to change reserved. Due to technical requirements components may contain dangerous substances. The data sheet may changed without prior information; the valid issue will be on our webpage in internet. Parameters can vary in different applications. All operating parameters must be validated for each customer application by the customer. OSA Opto Light does not have the responsibility for the reliability and the degradation behaviour of products made with OSA Opto Light diodes because they depend not only on the diode but also on the conditions of manufacture or design of the final products.

Packaging: Please use the recycling operators known to you.

Components used in life support devices or systems, toys and safety systems must be expressly authorized for such purpose!

#### Warnings and Handling Instructions

- **UV LEDs emit intense but mainly invisible ultraviolet radiation when in operation, which may be harmful to eyes, even for brief periods.**
- **\* DO NOT LOOK DIRECTLY INTO THE UV LED DURING OPERATION \***
- **\* BE SURE THAT YOU AND ALL PERSONS IN THE VICINITY WEAR SAFETY GOGGLES THAT PROVIDE SUITABLE UV PROTECTION WHEN A UV LED IS OPERATING \***
- **\* KEEP CHILDREN AWAY FROM THE OPERATING VICINITY \***
- **\* KEEP UV LEDs OUT OF THE REACH OF CHILDREN \***
- **If you incorporate a UV LED into a product, be sure to provide appropriate cautionary labels and instructions.**
- **Please follow all standard procedures for storing, handling, cleaning, mounting, soldering, disposal, or otherwise handling LED dies or packaged LEDs, including static electricity protection.**
- **The user has the responsibility to inform, train and instruct customers and coworkers**
  
- **UV- LED are ESD sensitive (Class1). The handling and usage have to consider this device property**