

Series 400 – Ceramics UV-LED

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

preliminary

Features

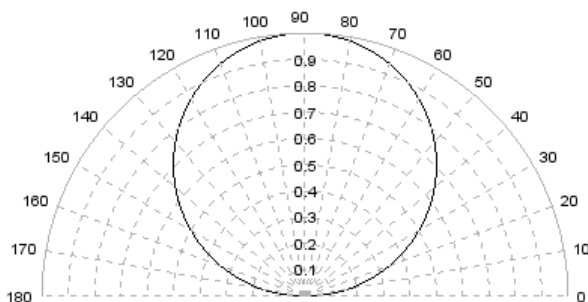
- package 1108
- size 3.0(L) x 2.0(W) x 1.0(H) mm
- circuit substrate: Al₂O₃ Ceramics
- encapsulation: Silicone
- devices are ROHS conform
- lead free solderable. soldering pads: gold plated
- taped in 8 mm blister tape.
- cathode to transporting perforation
- all devices sorted into luminous intensity classes
- taping: face-up (T)
- view angle 120°



Electro-Optical Characteristics

Measured at 20mA, T_a = 25°C

Parameter	Symbol	Type	Values			Unit
			min	typ	max	
Forward Voltage	V _F	OCU-400 UC375 OCU-400 UB365 OCU-400 UB355	3.2	3.6	4.2	V
Peak Wavelength	λ _p	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 _e	OCU-400 UC375 OCU-400 UB365 OCU-400 UB355	2.2 0.3 0.3	2.0 0.5 0.4	-	mW/sr



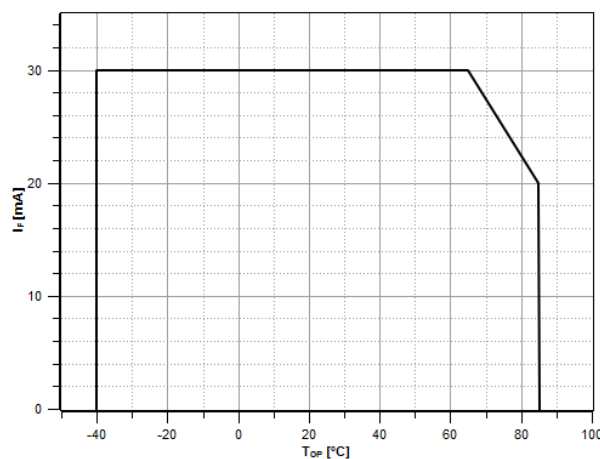
view angle

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	μA
Thermal Resistance	R_{thJA}		60	K/W
Operating Temperature	T_{Op}	-40	+85	$^{\circ}C$
Storage Temperature	T_{St}	-40	+85	$^{\circ}C$

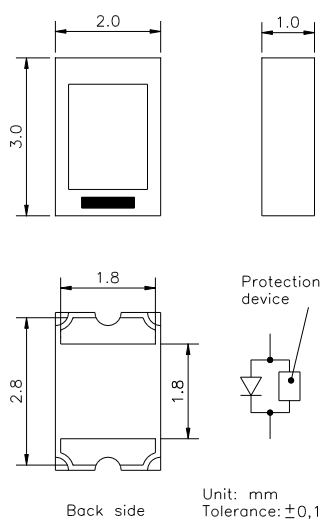
electrostatic discharge classification (MIL-STD-883E)

class 1

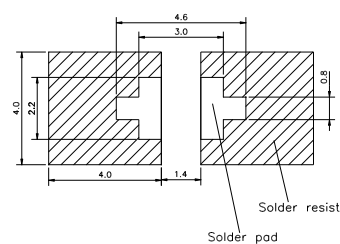


Maximal
forward
current (DC)
characteristic

Outline Drawing

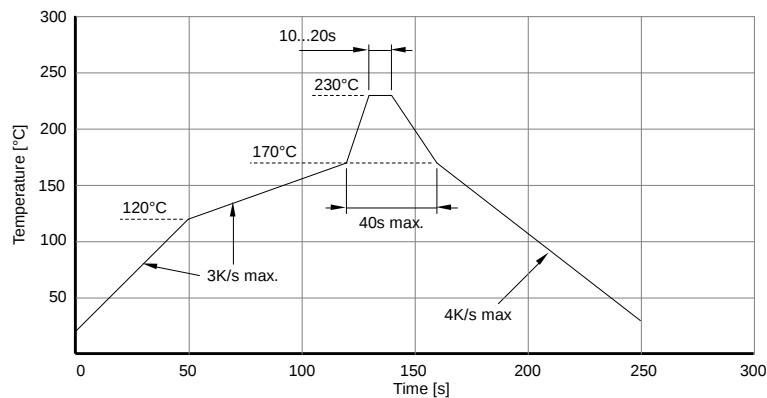


Recommended Soldering Patterns

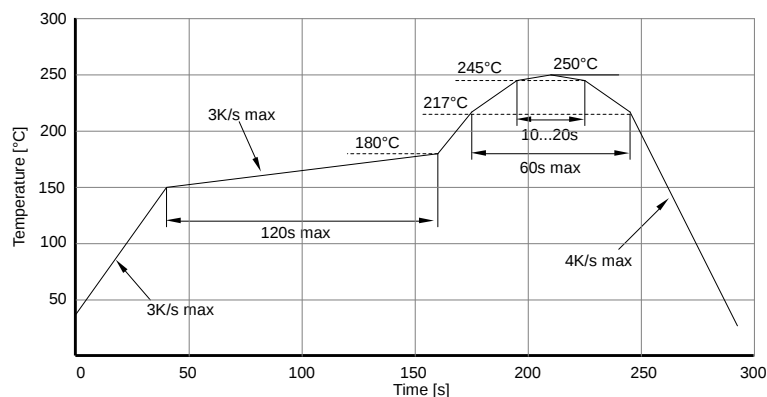


Marking at cathode

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]

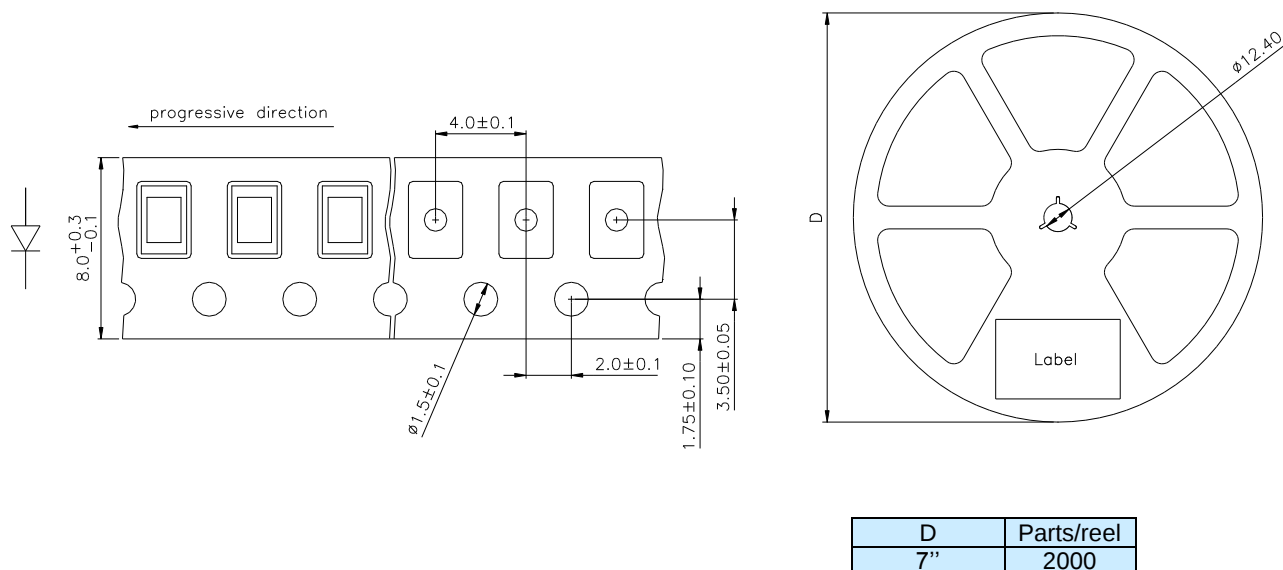
(general information – not this device specific)

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. XXXXXXXXX

Customer order No.

Type OCU-400 ?????-??-T

Intensity group ZZ Color class: CC

Color class - optional

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 be 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**