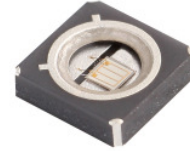


**Series 440 - Ceramics**  
**IR high intensity 880 nm**

preliminary

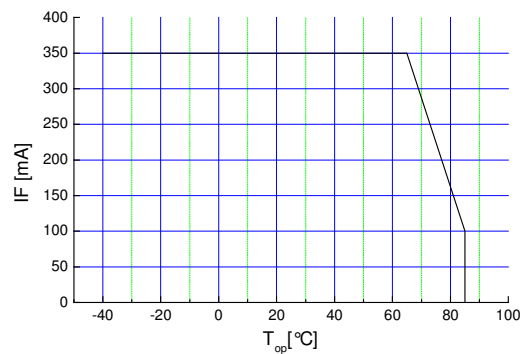
**Features**

- size 3.8(L) x 3.8(W) x 0.9(H) mm
- circuit substrate: AlN Ceramics
- devices are ROHS conform
- lead free solderable. soldering pads: silver plated
- taped in 16 mm blister tape. cathode to transporting perforation
- all devices sorted into luminous intensity classes
- taping: face-up (T)
- high radiation intensity type



**Absolute Maximum Ratings**

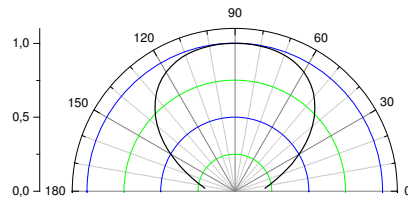
| $I_{F, max}$ [mA] | $I_{F, P}$ [mA] $t_p \leq 100 \mu s$ $\tau=1: 10$ | $V_R$ [V] | $I_{R, max}$ [ $\mu A$ ] | Thermal resistance $R_{thJA}$ [K / W] | $T_{Op}$ [ $^{\circ}C$ ] | $T_{St}$ [ $^{\circ}C$ ] |
|-------------------|---|-----------|--------------------------|---------------------------------------|--------------------------|--------------------------|
| 350               | 350   | 5         | 100                      | 10                                    | -40...85                 | -45...85                 |



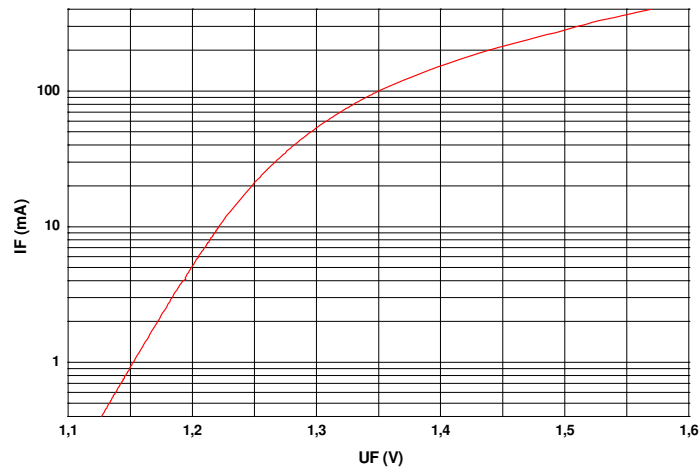
Maximal forward current (DC) characteristic

**Electro-Optical Characteristics**

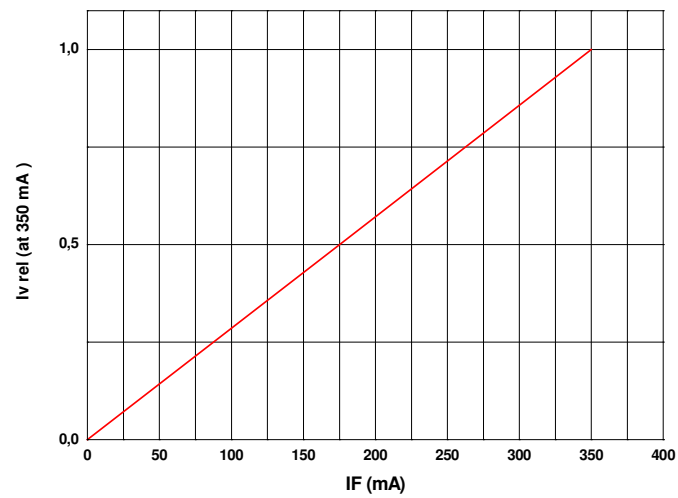
| Type        | Marking at | Measurement $I_F$ [mA] | Switching time (rise & fall) |          | $V_F$ [V] |     | $\lambda_p$ [nm] | $I_e$ [mW/sr] |     |
|-------------|------------|------------------------|------------------------------|----------|-----------|-----|------------------|---------------|-----|
|             |            |                        | typ [ns]                     | max [ns] | typ       | max |                  | min           | typ |
| OCI-440 880 | anode      | 350                    |                              |          | 1.5       | 2.0 | $875 \pm 10$     | 20            | 30  |



view angle

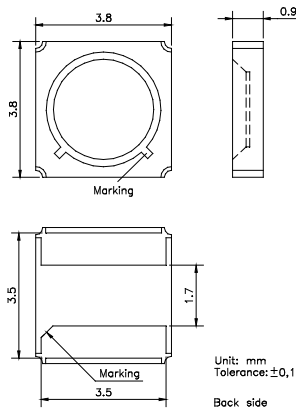


$U_F - I_F$   
characteristic

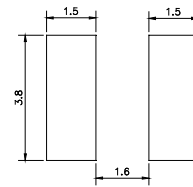


$I_F - I_{e, rel}$   
characteristic

**Outline Drawing**

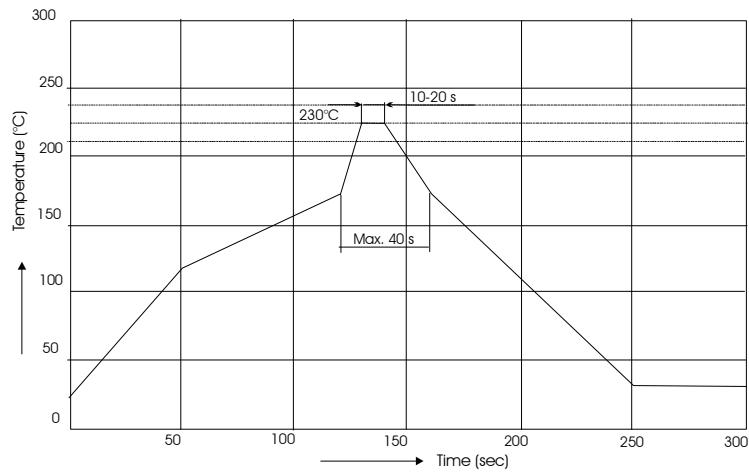


**Recommended Soldering Patterns**

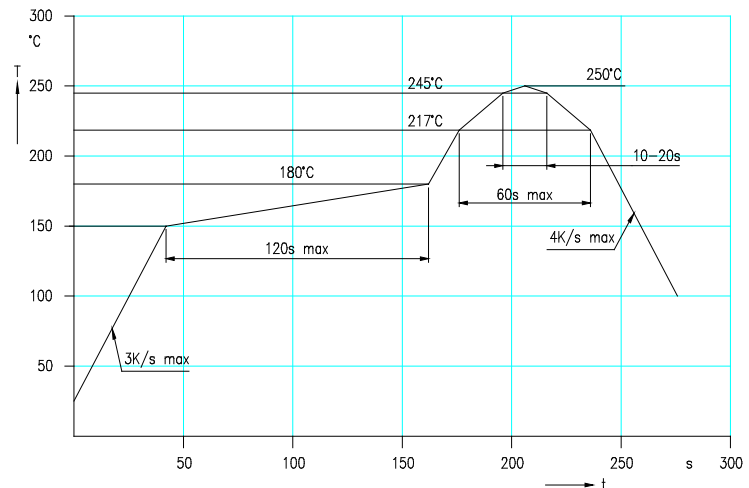


recommended max. thermal resistance  
device-ambient: 20 K/W

**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 |
|---------|---------|---------------------|-----------|
| OCI-440 | ??????? | X                   | T         |
|         |         |                     | T - taped |
|         |         | X - uncolored clear |           |

Type definition, e.g. OCI-440 880-X -T

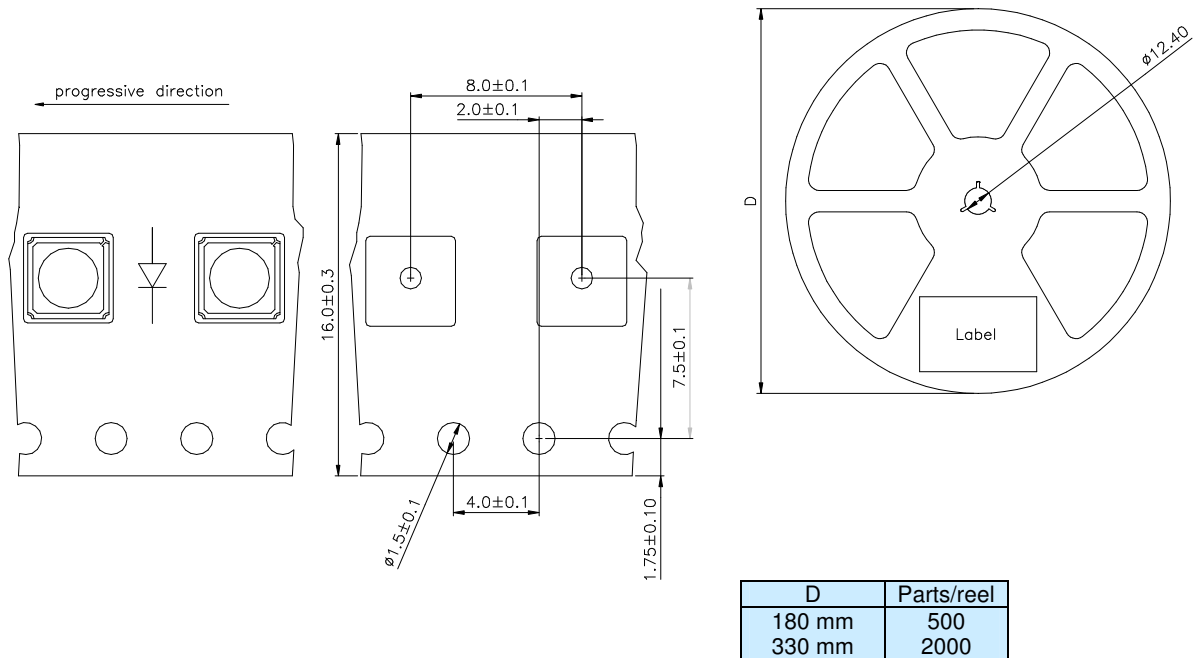
## LED Luminous Intensity Groups And Subgroups [ mW/sr ]

(general information – not this device specific)

|    |       |   |       |     |      |   |      |     |       |   |       |
|----|-------|---|-------|-----|------|---|------|-----|-------|---|-------|
| C: | 0.28  | - | 0.45  | C1: | 0.28 | - | 0.36 | J1: | 4.50  | - | 5.60  |
| D: | 0.45  | - | 0.71  | C2: | 0.36 | - | 0.45 | J2: | 5.60  | - | 7.10  |
| E: | 0.71  | - | 1.12  | D1: | 0.45 | - | 0.56 | K1: | 7.10  | - | 9.00  |
| F: | 1.12  | - | 1.80  | D2: | 0.56 | - | 0.71 | K2: | 9.00  | - | 11.20 |
| G: | 1.80  | - | 2.80  | E1: | 0.71 | - | 0.90 | L1: | 11.20 | - | 14.00 |
| H: | 2.80  | - | 4.50  | E2: | 0.90 | - | 1.12 | L2: | 14.00 | - | 18.00 |
| J: | 4.50  | - | 7.10  | F1: | 1.12 | - | 1.40 | M1: | 18.00 | - | 22.40 |
| K: | 7.10  | - | 11.20 | F2: | 1.40 | - | 1.80 | M2: | 22.40 | - | 28.00 |
| L: | 11.20 | - | 18.00 | G1: | 1.80 | - | 2.24 | N1: | 28.00 | - | 35.50 |
| M: | 18    | - | 28    | G2: | 2.24 | - | 2.80 | N2: | 35.50 | - | 45.00 |
| N: | 28    | - | 45    | H1: | 2.80 | - | 3.55 | P1: | 45.00 | - | 56.00 |
| P: | 45    | - | 71    | H2: | 3.55 | - | 4.50 | P2: | 56.00 | - | 71.00 |

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

## 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

| <b>Label</b>    |                    |
|-----------------|--------------------|
| Order No.       | XXXXXXXXXX         |
| Type            | OCI-440 ?????-??-T |
| Intensity group | ZZ                 |
| Charge No.      | 1122-AAAAAA        |
| Quantity        | 9999               |

|  |   |
|--|---|
|  | Customer order No.                            |
|  | 11 Week – 22 year – A internal identification |

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 and safety systems must be expressly authorized for such purpose!