# WINGER® WEXPW3-S
# 3535 ceramic on star PCB, white typ. 6,500 K, 280 lm @ 700 mA, 120°

| | |
|---|---|
| **Item number** | 8035355000 |
| **Type** | WEXPW3-S |
| **Brand** | WINGER® |
| **Package** | 3535 ceramic on star MCPCB, 21.38 × 19.92 mm |
| **Emitted colour** | white, typ. 6,500 K |
| **Viewing angle** | 120° |



The WINGER® WEXPW3-S is a 3535 ceramic power LED on a star metal-core PCB. It emits white light (typ. 6500 K) at 280 lm at typ. 700 mA or 400 lm at 1000 mA with a 120° viewing angle.

The LED is not supplied on a reel.

## 1 Optical and Electrical Characteristics

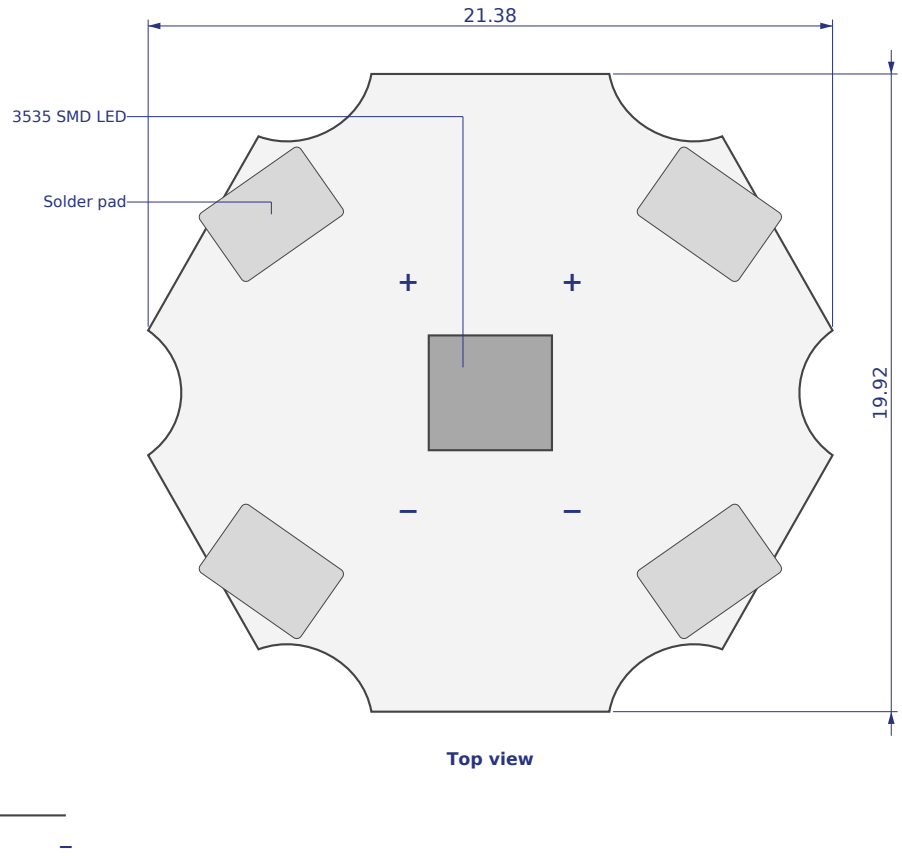
| Parameter | Symbol | Min. | Typ. | Max. | Unit | Condition |
|---|---|---|---|---|---|---|
| Forward voltage | $V_F$ | | 3.4 | | V | $I_F$ = 700 mA |
| Viewing angle (50 % power angle) | 2θ½ | | 120 | | ° | $I_F$ = 700 mA |
| Luminous flux | $\Phi_V$ | | 280 | | lm | $I_F$ = 700 mA |
| Luminous flux | $\Phi_V$ | | 400 | | lm | $I_F$ = 1000 mA |
| Colour temperature | $T_C$ | | 6,500 | | K | $I_F$ = 700 mA |
| Forward current | $I_F$ | | 700 | 1000 | mA | |

## 2 Absolute Maximum Ratings

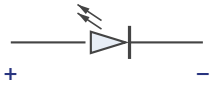
| Parameter | Symbol | Rating |
|---|---|---|
| Forward current | $I_F$ | 1,000 mA |
| Max. power dissipation | $P_D$ | 3 W |

## 3 Mechanical Data

| Parameter | Value |
|---|---|
| Package | 3535 ceramic on star MCPCB |
| Length | 21.38 mm |
| Width | 19.92 mm |
| Polarity | two positive pads (+), two negative pads (−) |




**Top view**




Dimensions in mm. Four pads: two positive (+), two negative (−).

## 4 Ordering Information and Packaging

| Parameter | Value |
|---|---|
| Item number | 8035355000 |
| Type | WEXPW3-S |
| Packaging | loose in bag |
| Packaging unit | on request |

## 5 Handling and Application Notes

- Always operate the LED with a current-limiting series resistor or a constant-current source – never connect it directly to a voltage source. Series resistor: $R = (U_{supply} - V_F) / I_F$.
- When connecting LEDs in parallel, use a separate series resistor for each LED or string.
- Do not exceed the absolute maximum ratings, not even briefly; avoid reverse voltage.
- Bend the leads only before soldering and at room temperature, never directly at the body (typ. at least 3 mm [4] from the body). Hold the lead firmly between body and bending point; never use the body as a fulcrum.
- Do not apply mechanical stress to the leads or the lens while the LED is hot (during and directly after soldering). Let it cool down to room temperature first.
- Clean with isopropyl alcohol only if necessary; do not use aggressive solvents. Ultrasonic cleaning only after prior qualification.
- Do not look directly into the LED at short distance for a longer period (glare).

[4] Typical value for this LED type; not individually measured / subject to confirmation.

## 6 ESD Protection

| Parameter | Value |
|---|---|
| ESD withstand voltage (HBM) | 1,000 V [4] (HBM, ANSI/ESDA/JEDEC JS-001) |

- LEDs are electrostatic-sensitive devices (ESD). Electrostatic discharge or voltage surges can damage the LED immediately or reduce its service life without visible signs.
- Handle and process only in an ESD protected area (EPA) in accordance with IEC 61340-5-1: grounded work surfaces, equipment and soldering irons, wrist straps or ESD gloves, ESD-safe packaging and transport containers.
- Keep the LEDs in their ESD-safe packaging until processing.

[4] Typical value for this LED type; not individually measured / subject to confirmation.

## 7 Soldering Instructions

| Parameter | Value |
|---|---|
| Wave soldering | max. 260 °C, max. 5 s, at least 3 mm from the body [4] |
| Preheating (wave soldering) | max. 100 °C, max. 60 s [4] |
| Hand soldering | max. 350 °C, max. 3 s, at least 3 mm from the body, once only [4] |

- Recommended methods: wave soldering or hand soldering. Through-hole LEDs are not intended for reflow soldering unless explicitly stated.
- Solder only once if possible and keep the specified minimum distance between soldering point and body. Never dip the body into the solder.
- Hand soldering: use a temperature-controlled, grounded soldering iron; do not touch the body with the tip.
- Shorten the leads preferably after soldering and without transferring stress to the body.

[4] Typical value for this LED type; not individually measured / subject to confirmation.

## 8 Storage

| Parameter | Value |
|---|---|
| Storage temperature | on request |
| Recommended storage conditions | ≤ 30 °C, ≤ 60 % RH, in original packaging [4] |
| Shelf life | 12 months from delivery in unopened original packaging [4] |

- Store in the original packaging in a dry, clean environment free of corrosive gases. Avoid condensation and rapid temperature changes.
- High humidity or sulphur-containing atmospheres can discolour the lead surface and impair solderability; process the LEDs promptly.

[4] Typical value for this LED type; not individually measured / subject to confirmation.

## 9 Environmental Compliance

| Parameter | Value |
|---|---|
| RoHS (EU) 2011/65/EU incl. (EU) 2015/863 | compliant [4] |
| REACH (EC) 1907/2006 | no SVHC of the candidate list above 0.1 % (w/w) known |

Declarations of conformity are available on request.

[4] Typical value for this LED type; not individually measured / subject to confirmation.

## 10 Warranty and Application Limits

- Perform an acceptance inspection on arrival of the goods; return defective items stating the defect and quantity.
- Integration of the LEDs into the application and verification of service life and other qualities in practical use shall be carried out by the user.
- Do not use the LEDs in applications requiring higher reliability and safety where failure or malfunction could endanger life or health. The seller assumes no liability for claims or damages resulting from use contrary to the intended purpose or without written consent.
- The seller assumes no responsibility for damage or defects caused by operation at currents exceeding the absolute maximum ratings; these are not covered by warranty.

Values marked [4] are typical values for this LED type and have not been individually measured for this item; they are subject to confirmation. Please contact us for binding values: info@led1.de · +49 340 8508260.

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