WINGER® WEPRD3-E1
Power LED Emitter, red
typ. 625 nm, typ. 100 lm, 120°



Item number	70062510101
Type	WEPRD3-E1
Brand	WINGER®
Package	Power LED emitter, 14.5 × 5.0 mm
Emitted colour	red, typ. 625 nm
Viewing angle	120°

The WINGER® WEPRD3-E1 is a 3 W power LED in an emitter package (14.5 × 5.0 mm). It emits red light (typ. 625 nm) at typ. 100 lm at 700 mA with a 120° viewing angle.

Operate from a 700 mA constant-current source. Ensure adequate cooling of the LED.

1 Optical and Electrical Characteristics

Parameter	Symbol	Min.	Typ.	Max.	Unit	Condition
Forward voltage	V_F	2.2	2.4	2.8	V	I_F = 700 mA
Viewing angle (50 % power angle)	2θ½		120		°	I_F = 700 mA
Luminous flux	Φ_V		100		lm	I_F = 700 mA
Dominant wavelength	λ_D		625		nm	I_F = 700 mA
Recommended forward current	$I_{F(rec)}$		700		mA	
Reverse current	I_R			20	µA	V_R = 5 V

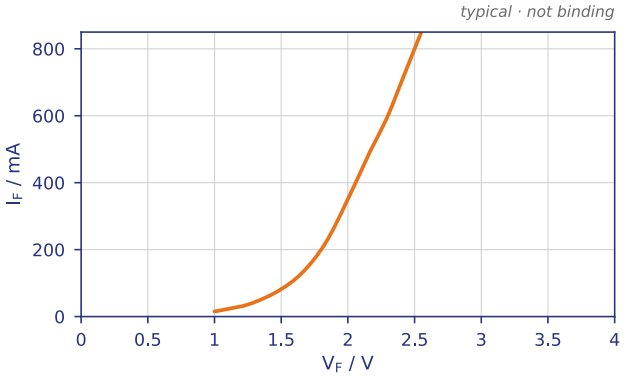
Measurement conditions: T_A = 25 °C unless otherwise stated.

2 Absolute Maximum Ratings

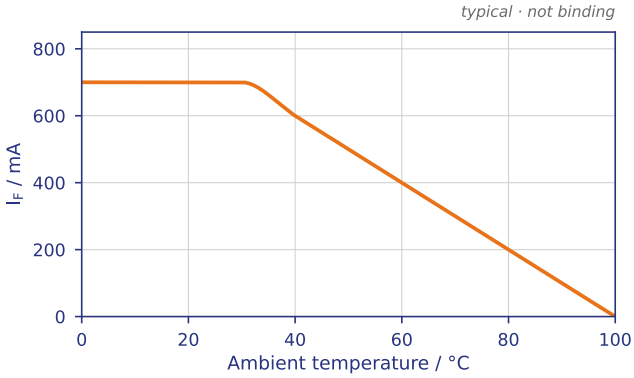
Parameter	Symbol	Rating
Forward current	I_F	700 mA
Peak forward current (duty cycle 1/10, pulse width 0.1 ms)	I_{FP}	1400 mA
Reverse voltage	V_R	5 V
Max. power dissipation	P_D	3 W
Operating temperature range	T_{OPR}	−20 … +60 °C
Storage temperature range	T_{STG}	−30 … +60 °C
Soldering temperature	T_{SOL}	max. 5 s at 260 °C

3 Characteristic Curves

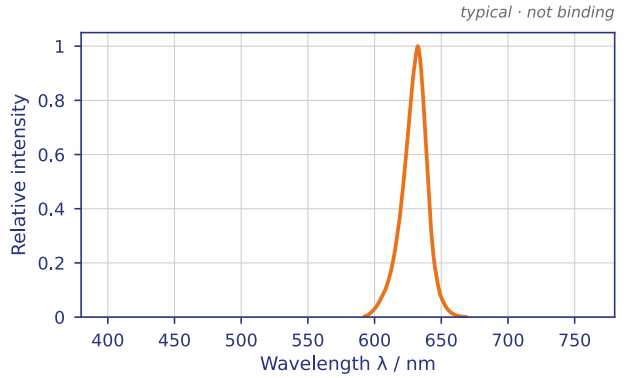
Forward current / forward voltage



Current derating



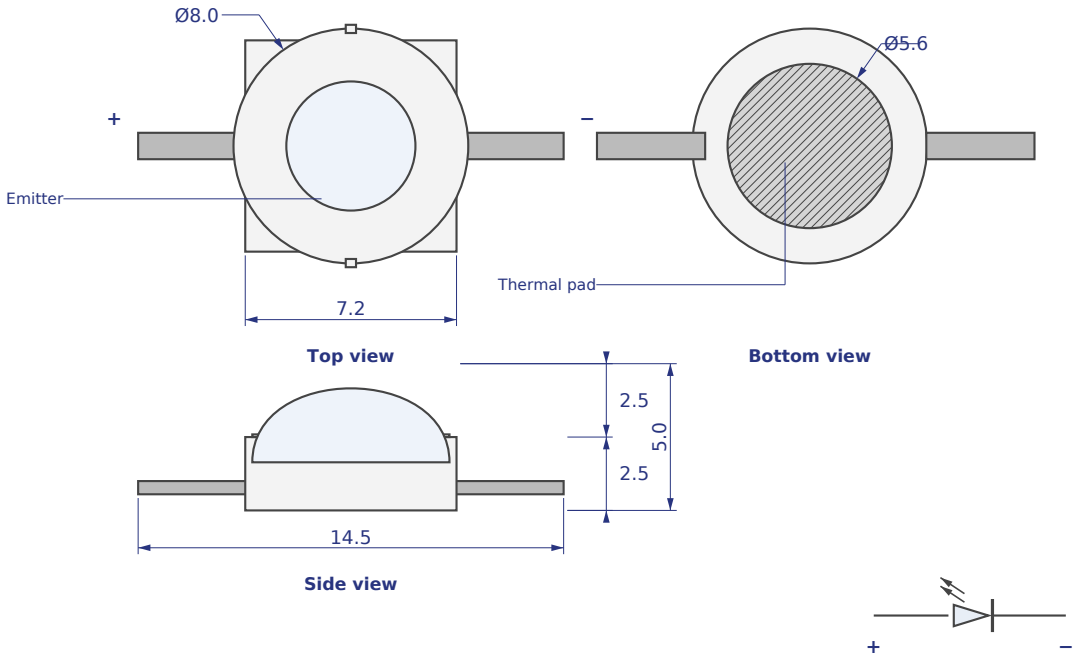
Spectrum



Curves show typical values at T_A = 25 °C unless stated otherwise.

4 Mechanical Data

Parameter	Value
Package	Power LED emitter
Length (incl. leads)	14.5 mm
Body width	7.2 mm
Emitter diameter	Ø 8.0 mm
Thermal pad	Ø 5.6 mm
Overall height	5.0 mm
Polarity	anode left (+), cathode right (−)



Dimensions in mm. General tolerance ±0.25 mm. Anode (+), cathode (−).

5 Ordering Information and Packaging

Parameter	Value
Item number	70062510101
Type	WEPRD3-E1
Packaging	loose in bag
Packaging unit	50 pcs

6 Handling and Application Notes

- Always operate the LED from a 700 mA constant-current source – never connect it directly to a voltage source.
- When connecting LEDs in parallel, provide separate current limiting for each LED or string.
- Do not exceed the absolute maximum ratings, not even briefly; avoid reverse voltage. Ensure adequate cooling of the LED.
- Observe ESD precautions. Do not apply mechanical stress to the emitter 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.
- Do not look directly into the LED at short distance for a longer period (glare).

7 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.

8 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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