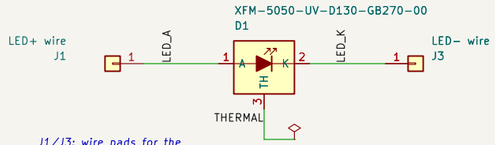
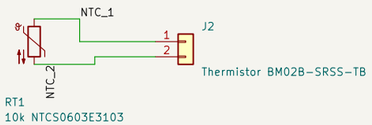
LED



J1/J3: wire pads for the LED cable from S2.

D1: 275 nm UV-C LED. Its centre pad is thermal only (tied to the copper pours).

THERMISTOR



RT1: NTC thermistor next to the LED; J2 carries it to the controller's THERM input.

NOTES
Board: 19 mm diameter round, no mounting holes (bond to heatsink with thermal adhesive, or clamp it).
J1/J3: SMD wire pads for ~20 AWG (0.5 mm2) wire to stack board S2-Driver J2 (LED+ / anode, VLED_UV) and J3 (LED- / cathode, LED_K). 2 A continuous.
D1 centre pad (TH) is tied to the copper pours for heat spreading only; it is not connected to anode or cathode.
Driver limits: 2 A typ, 3.2 A abs max; keep Tj < 95 C (Rth j-sp 1.8 C/W).
RT1 sits next to D1 and runs to the controller board's THERM input via J2 (JST-SH 1.0 mm, mates with SHR-02V-S).
UV-C (275 nm) is hazardous to eyes and skin; do not view while energised.

Prefer aluminium MCPCB; FR4 version relies on thermal vias under the LED
19 mm round board. Wires from stack board S2-Driver J2 (LED+) and J3 (LED-)

MBARI

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Title: XFM-5050-UV LED Carrier

Size: B	Date: 2026-11-12	**Rev: B**
KiCad E.D.A. 10.0.6		Id: 1/1