PDES Joule Heating Circuit

MOSFET-switched resistive heating with optical synchronization

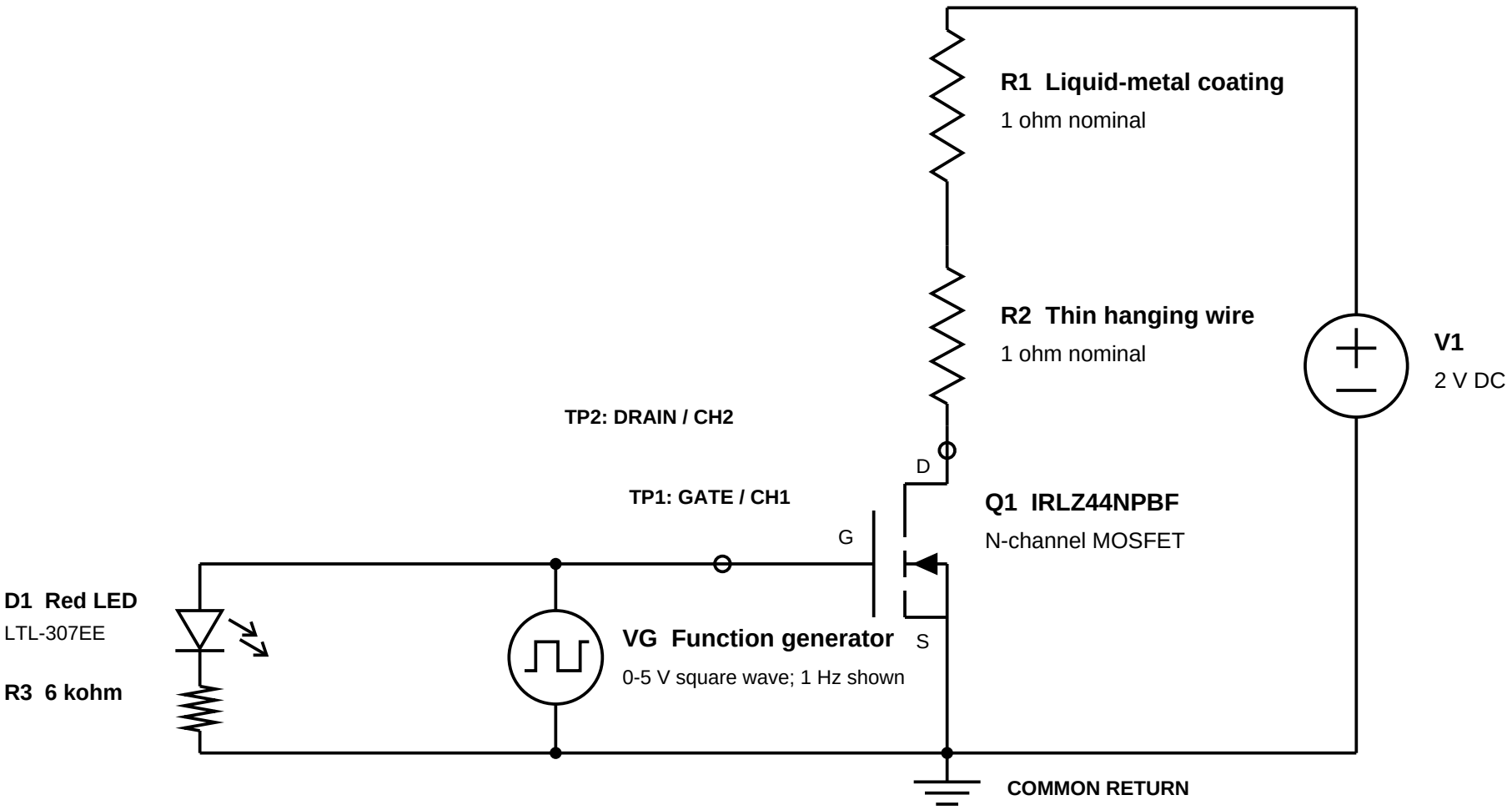


Figure 1. Electrical circuit for cyclic Joule heating of a liquid-metal-coated PDES actuator.

R1 and R2 model the specimen coating and hanging wire; they are not additional discrete resistors.

Oscilloscope: CH1 tip to TP1; CH2 tip to TP2. Both ground clips connect to COMMON RETURN.

Nominal values follow the source schematic. Record the actual resistance, frequency, duty cycle, and current.

Source: Anthony Honeine, HAND_Anthony.pptx, slide 5. Test-point labels added for measurement reference.