

# Power & Thermal Mini-Worksheet

Inputs (per channel):

- I\_CONT (A) = \_\_\_\_

- R\_ON ( $\Omega$ ) = \_\_\_\_

-  $\theta_{JA}$  ( $^{\circ}\text{C}/\text{W}$ ) = \_\_\_\_

- Ambient ( $^{\circ}\text{C}$ ) = \_\_\_\_

- V\_LOAD (V) = \_\_\_\_

- I\_SURGE (A) = \_\_\_\_

Equations:

$$P_{\text{cond}} \approx I_{\text{CONT}}^2 \times R_{\text{ON}} ; \quad \Delta T \approx P_{\text{cond}} \times \theta_{\text{JA}} ; \quad T_{\text{j}} \approx T_{\text{amb}} + \Delta T$$

## Quick Table — Try 3 Operating Points

Case	I_CONT (A)	R_ON ( $\Omega$ )	$\theta_{JA}$ ( $^{\circ}\text{C}/\text{W}$ )	P_cond (W)	$\Delta T$ ( $^{\circ}\text{C}$ )	T <sub>j</sub> ( $^{\circ}\text{C}$ )
1	—	—	—	—	—	—
2	—	—	—	—	—	—
3	—	—	—	—	—	—