

$$29-7. \quad P_{\text{MOSFET}} = 50 + 10^{-3} \cdot 2.5 \times 10^4 = 75 \text{ W}$$

$$R_{\theta,ja} = R_{\theta,jc} + R_{\theta,ca} = \frac{150^\circ\text{C} + 35^\circ\text{C}}{75\text{W}} = 1.53 \text{ }^\circ\text{C/W}$$

$$R_{\theta,ca} = 1.53 - 1.00 = 0.53 \text{ }^\circ\text{C/W}$$