For the circuit below, determine the current through the LED.

Assume $V_{CE(sat)} = 0.2$, $V_{Diode} = 2V$

Q1 and Q2 are both saturated

Current through diode will be

KVL loop:

$-10 + I_d(100) + 0.2 + 2.0 + 0.2 + I_d(100) = 0$

$-10 + 2.4 + 200 I_d = 0$

$200 I_d = 7.6$

$I_d = 3.8mA$ (A bright LED!)