



$V_{IN}=8-20V$
 $V_{SENSE}=0-500mV$
 $V_{OUT}=0-2.5V$

 $V_{SENSE}=R_{SENSE}*I_{LOAD}$
 $V_{SENSE}=0.02R*5A$
 $V_{SENSE}=100mV$

 $I_{OUT}=V_{SENSE}/G_T$
 $I_{OUT}=100mV/0.01$
 $I_{OUT}=1mA$

 $R_{SET}=V_{OUT}/I_{OUT}$
 $R_{SET}=2.5V/1mA=2.5k$
 $R_{SET}=2k \pm 4.99k(1\%)$

 $R_{BASE}=\frac{(V_{IN_MAX}-V_Z)*h_{FE_min}}{I_{OUT}}$
 $R_{BASE}=\frac{(30V-15V)*100}{1mA}$
 $R_{BASE}=1.5Meg(1\%)$

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Sheet: /

File: ZXCT1008_over.kicad_sch

Title: Current output current monitor. Over-range voltage.

Size: A4

Date: 2023-01-29

Rev: 1

KiCad E.D.A. kicad 6.0.10-86aedd382b-118-ubuntu20.04.1

Id: 1/1