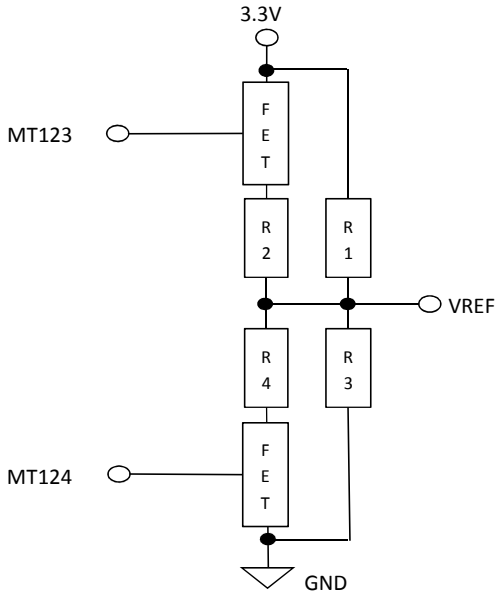
Current Setting

①Calculation

VREF resistance×1	
R1(Ω)	1,000
R2(Ω)	3,600
Total(Ω)	783
VREF resistance×2	
R3(Ω)	4,300
R4(Ω)	5,100
Total(Ω)	2,333

Sense resitance(Ω)	0.62
V3P3(V)	3.30

Signal		VREF Res1 (Ω)	VREF Res2 (Ω)	VREF(V)
MT123	MT124			
0	1	1,000	2,333	2.310
1	1	783	2,333	2.471
0	0	1,000	4,300	2.677
1	0	783	4,300	2.792



②Current setting

TRQsetting				VREF setting		Calculation current using Formula(2)	VTRIP ※2	Calculation current using VTRIP÷Rsense
TRQ setting		Current Ration	Av	Signal name				
TRQ0	TRQ1			MT123	MT124			
1	1	25%	6.38	0	1	146	0.064	103
1	1	25%	6.38	1	1	156	0.070	113
1	1	25%	6.38	0	0	169	0.079	127
1	1	25%	6.38	1	0	176	0.083	135
0	1	50%	6.51	0	1	286	0.155	250
0	1	50%	6.51	1	1	306	0.168	270
0	1	50%	6.51	0	0	332	0.184	297
0	1	50%	6.51	1	0	346	0.193	312
1	0	75%	6.56	0	1	426	0.241	389
1	0	75%	6.56	1	1	456	0.260	420
1	0	75%	6.56	0	0	494	0.284	458
1	0	75%	6.56	1	0	515	0.298	480
0	0	100%	6.58	0	1	566	0.325	524
0	0	100%	6.58	1	1	606	0.350	564
0	0	100%	6.58	0	0	656	0.381	614
0	0	100%	6.58	1	0	684	0.398	643

※1 Formula(2) Ichop=(VREF(V)×TRQ(%))÷(Av×Rsense)

※2 We calculated Vtrip using follows approximation which is from figure9.

TRQ=11	VTRIP=0.041*VREF-0.031
TRQ=10	VTRIP=0.08*VREF-0.03
TRQ=01	VTRIP=0.117*VREF-0.029
TRQ=00	VTRIP=0.152*VREF-0.026

There is some difference between formula(2) and the calculation value from Figure9.