S-8254 Nch FET Drive Circuit
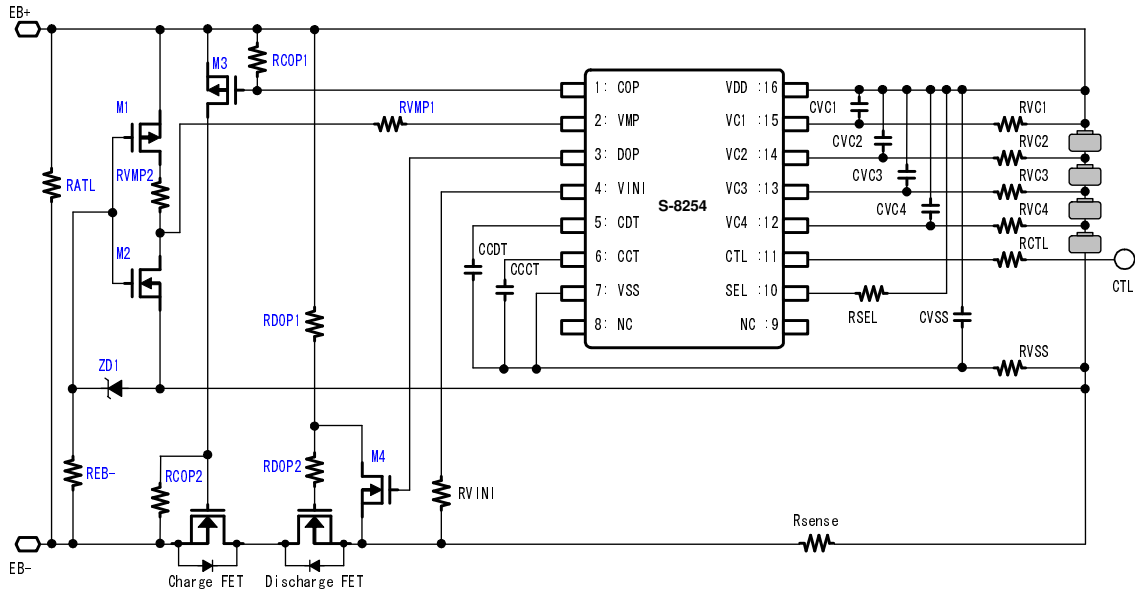
Additional Parts List

No.	Symbol	Value	Unit	Parts name	Maker	Note
1	M1	-	-	2SJ210	NEC	Recommend
2	M2	-	-	2SK1590	NEC	Recommend
3	M3	-	-	2SJ210	NEC	Recommend
4	M4	-	-	2SK1590	NEC	Recommend
5	ZD1	-	-	UDZS18B	ROHM	Recommend
6	RVMP1	1	kΩ	MCR03	ROHM	Recommend
7	RVMP2	5.1	kΩ	MCR03	ROHM	Must
8	RCOP1	1	MΩ	MCR03	ROHM	Recommend
9	RCOP2	1	MΩ	MCR03	ROHM	Recommend
10	RDOP1	1	MΩ	MCR03	ROHM	Recommend
11	RDOP2	5.1	kΩ	MCR03	ROHM	Recommend
12	REB-	1	MΩ	MCR03	ROHM	Must
13	RATL	10	MΩ	MCR03	ROHM	Recommend

Note

・Load short detection is not Viov3 of S-8254. Load short detection is decided by the following expressions.

   Ishort * (RSENSE + Ron of Discharge FET + RON of Charge FET) ＞ Vth of M2

・The current leaks at Overdischarge state by the following pass.

   Bat +　→　RDOP1　→　M4　→　Bat－

   Please increase RDOP1 when you want to decrease the leakage current in Overdischarge state.

・Overcurrent status and Overdischarge status is released by connecting a charger.

・Please reduce RATL when the high temperature leakage current of Charge FET and Discharge FET is large.

Caution

   Above circuit is only for reference. It has not been confirmed whether the operation of above circuit is normal or not for all application, the example of connection and the constant do not guarantee proper operation. Please evaluate above circuit carefully with your real application condition before using it.