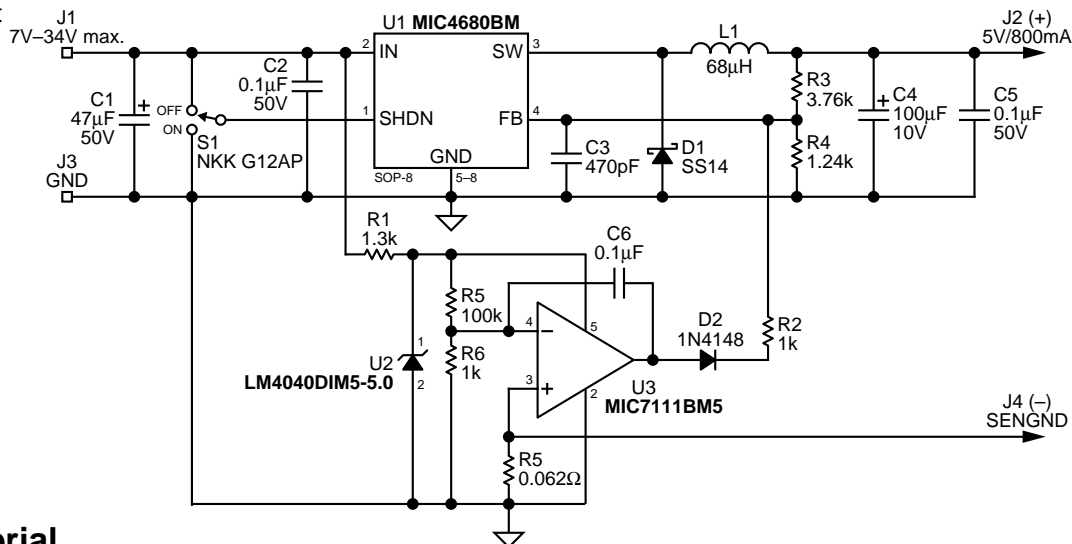


Circuit Performance

- Simple solution for constant current and constant voltage
- Ultralow cost



Bill of Material

Reference	Part Number	Manufacturer	Description	Qty
C1	TPSD156M035R0300 ECE-A1HFS470	AVX Panasonic	15µF 35V 47µF 50V, size 8mm × 11.5mm	2
C2, C5, C6	08055C104KAT1A	AVX	0.1µF 50V	3
C3	08055C471KAT1A	AVX	470pF 50V, ceramic	1
C4	TPSD107M010R0065	AVX	100µF 10V	1
D1	B140 SS14	Vishay-Diode, Inc. (Note 1) General Semiconductor	1A 40V, Schottky diode 1A 40V, Schottky diode	1
D2	1N4148		100mA 100V, diode	1
J1-J4	2551-2-00-01-00-00-07-0	Mill-Max	turret pin	4
L1	CDRH125-680 CDH115-680 UP2B-680MC	Sumida (Note 3) Sumida (Note 3) Coiltronics	68µH 68µH, I _{SAT} = 1.2A 68µH, I _{SAT} = 1.5A	1
R1	CRCW08051301FRT1	Vishay-Dale (Note 2)	1.3k 1/10W ±1%, size 0805	1
R2, R6	CRCW08051001FRT1	Vishay-Dale (Note 2)	1k 1/10W ±1%, size 0805	1
R3	CRCW08053761FRT1	Vishay-Dale (Note 2)	3.76k 1/10W ±1%, size 0805	1
R4	CRCW08057241FRT1	Vishay-Dale (Note 2)	1.24k 1/10W ±1%, size 0805	1
R5	CRCW08051003FRT1	Vishay-Dale (Note 2)	100k 1/10W ±1%, size 0805	1
R7	LR1206-01-R062F	IRC	0.062Ω ±1%	1
S1	G12AP	NKK switches		1
U1	MIC4680BM	Micrel Semiconductor	1A 200kHz power-SO-8 buck regulator	1
U2	LM4040DIM5-5.0	Micrel Semiconductor	precision micropower shunt voltage ref.	1
U3	MIC7111BM5	Micrel Semiconductor	IttyBitty™ rail-to-rail input comparator	1

Note 1: Vishay-Diode, Inc. (805) 446-4800

Note 2: Vishay-Dale (402) 371-0080

Note 3: Sumida (408) 982-9660

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