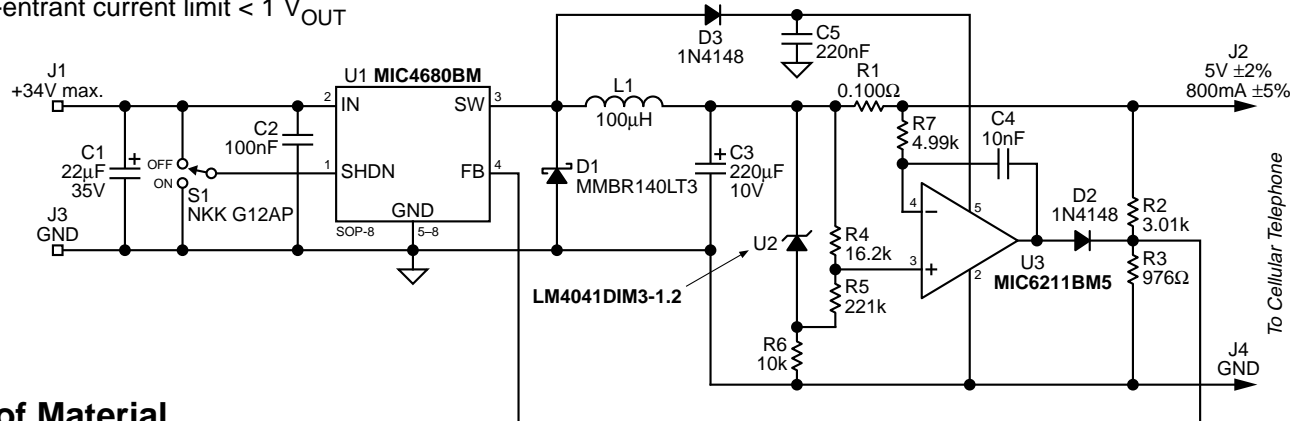


Circuit Performance

- Output voltage $\pm 2\%$ accuracy
- Output current $\pm 5\%$ accuracy ($\pm 10\%$ over the operating temperature range)
- Re-entrant current limit $< 1 V_{OUT}$



Bill of Material

Reference	Part Number	Manufacturer	Description	Qty
C1(Note 1)	TPSD226M035R0300 ECE-A1HFS470	AVX Panasonic	22µF 35V 47µF 50V, size 8mm × 11.5mm	1
C2	08055C104KAT1A	AVX	0.1µF 50V	1
C3	TPSD227M010R0065	AVX	220µF 10V	1
C4	08055C103KAT1A	AVX	0.01µF 50V	1
C5	08055C223KAT1A	AVX	0.22µF 50V	1
D1	B160 MBRM140LT3 SS16	Vishay Lite-On ^(Note 2) Motorola GI	1A 60V, Schottky diode 1A 40V, Schottky diode 1A 60V, Schottky diode	1
D2, D3	FDLL4148 LL4148DICT-ND	Fairchild Semiconductor Vishay	switching diode high-speed switching diode	2
J1–J4	2551-2-00-01-00-00-07-0	Mill-Max	turret pins	1
L1	CDH74-101 UP2-101	Sumida Inductor Coiltronics	100µH 100µH, $I_{SAT} = 1.2A$	2
R1	WSL-2010-R100-F LR2010-01-R100F	Vishay-Dale ^(Note 3) IRC	0.100Ω $\pm 1\%$	1
R2	CRCW08053011FRT1	Vishay-Dale ^(Note 3)	3.01k 1/10W $\pm 1\%$, size 0805	1
R3	CRCW08059760FRT1	Vishay-Dale ^(Note 3)	976Ω 1/10W $\pm 1\%$, size 0805	1
R4	CRCW08051622FRT1	Vishay-Dale ^(Note 3)	16.2k 1/10W $\pm 1\%$, size 0805	1
R5	CRCW08052213FRT1	Vishay-Dale ^(Note 3)	221k 1/10W $\pm 1\%$, size 0805	1
R6	CRCW08051002FRT1	Vishay-Dale ^(Note 3)	10k 1/10W $\pm 1\%$, size 0805	1
R7	CRCW08054991FRT1	Vishay-Dale ^(Note 3)	4.99Ω 1/10W $\pm 1\%$, size 0805	1
S1	G12AP	N.K.K.	switch	1
U1	MIC4680BM	Micrel Semiconductor	1A 200kHz power-SO-8 buck regulator	1
U2	LM4041DIM3-1.2	Micrel Semiconductor	precision µpower shunt voltage reference	1
U3	MIC6211BM5	Micrel Semiconductor	IttyBitty™ operational amplifier	1

Note 1. 22 μ F 35V for $V_{IN(peak)} < 34V$; 47 μ F 50V for $V_{IN(peak)} > 34V$

Note 2: Vishay-Lite On, Inc. (805) 446-4800

Note 3: Vishay-Dale (402) 371-0080

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