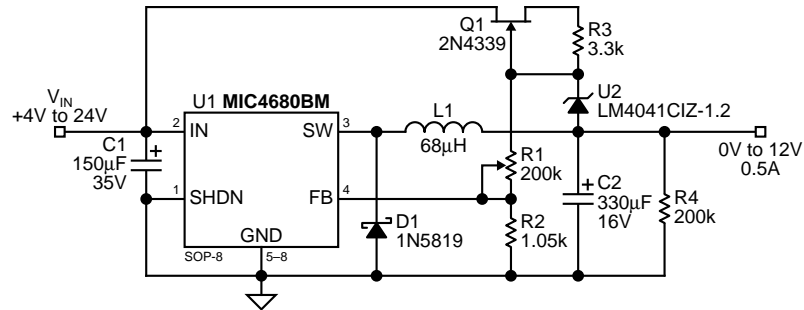


### Circuit Performance

- Low-cost adjustable output voltage solution
- Approximately 20mm × 20mm footprint
- Up to 90% efficiency with 12V input



Reference	Part Number	Manufacturer	Description	Qty
C1	UPL1V151MPH	Nichicon	150µF 35V, ESR = 0.12Ω	1
C2	UPL1C331MPH	Nichicon	330µF 16V, ESR = 0.12Ω	1
D1	1N5819	Motorola		1
L1	UP2B-680MC	Coiltronics	68µH	1
Q1	2N4339		N-channel junction FET	1
R1			200k potentiometer	1
R2	CRCW08051051FRT1	Vishay-Dale <sup>(Note 1)</sup>	1.05k	1
R3	CRCW08053301FRT1	Vishay-Dale <sup>(Note 1)</sup>	3.3k	1
R4	CRCW08052203FRT1	Vishay-Dale <sup>(Note 1)</sup>	220k	1
U1	<b>MIC4680BM</b>	Micrel Semiconductor	1A 200kHz power-SO-8 buck regulator	1
U2	<b>LM4041CIZ-1.2</b>	Micrel Semiconductor	precision µpower shunt voltage regulator	1

**Note 1:** Vishay-Dale (402) 371-0080

---

**MICREL INC. 1849 FORTUNE DRIVE SAN JOSE, CA 95131 USA**

TEL + 1 (408) 944-0800 FAX + 1 (408) 944-0970 WEB <http://www.micrel.com>

This information is believed to be accurate and reliable, however no responsibility is assumed by Micrel for its use nor for any infringement of patents or other rights of third parties resulting from its use. No license is granted by implication or otherwise under any patent or patent right of Micrel Inc.

© 2000 Micrel Incorporated