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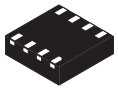
RoHS

600mA High Efficiency Low Quiescent Current Synchronous Buck Regulator With Z-mode

34727

POWER MANAGEMENT IC



Bottom View

FC SUFFIX (PB-FREE)
98ASA10787D
8-PIN UDFN
2X2

The 34727 is a high efficiency, low quiescent current (I_Q), synchronous buck regulator, implementing Freescale's innovative Z-mode architecture. Freescale's Z-mode architecture greatly improves the ripple performance during light load currents, but still maintains a low quiescent current of 65μA, at no load in "Sleepy" Z-mode.

The 34727 accepts an input voltage in the range of 2.7 to 5.5V, making it ideally suited for single cell Li-Ion based applications. Factory preset output voltages, ranging from 0.8 to 3.3V, reduce the number of required auxiliary components. The part is able to provide 600mA of continuous load current across the input and the output voltage ranges.

The 34727 switches at 2.0MHz to allow the use of small surface mount inductors and capacitors, to save precious board space.

The 34727 is available in the small, space saving, and low cost, 2x2 UDFN-8 packages. The part is guaranteed for operation over the -25°C to +85°C temperature range.

ORDERING INFORMATION

Device	Temperature Range (T_A)	Package
MC34727AFC/R2	-25°C to 85°C	8-UDFN
MC34727BFC/R2		
MC34727CFC/R2		

Features

- 94% peak efficiency
- 2.0MHz switching frequency
- Automatic transition to energy saving light load Z-mode (low ripple)
- 2.7V to 5.5V input voltage range
- Fixed output voltage options from 0.8V to 3.3V
- 65μA quiescent current during sleepy Z-mode
- 600mA maximum continuous output current
- Internal 2.0ms soft start
- Thermal and over-current protection
- 0.1μA quiescent current in shutdown (disabled)
- Ultra thin 2x2 UDFN package
- Pb-free packaging designated by suffix code FC

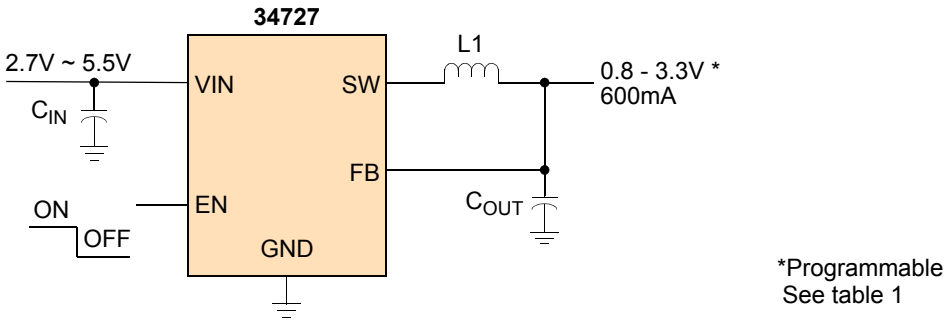


Figure 1. 34727 Typical Operating Circuit

* This document contains certain information on a new product.
Specifications and information herein are subject to change without notice.

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