

Product Overview

MC33167: Buck / Boost / Inverting Regulator, Switching, 5.0 A

For complete documentation, see the data sheet.

The MC34167, MC33167 series are high performance fixed frequency power Buck Boost Inverting Switching Regulators that contain the primary functions required for dc-dc converters. This series was specifically designed to be incorporated in step-down and voltage-inverting configurations with a minimum number of external components. These devices consist of an internal temperature compensated reference, fixed frequency oscillator with on-chip timing components, latching pulse width modulator for single pulse metering, high gain error amplifier, and a high current output switch. Protective features consist of cycle-by-cycle current limiting, undervoltage lockout, and thermal shutdown. Also included is a low power standby mode that reduces power supply current to 36 μ A.

Features

- Output Switch Current in Excess of 5.0 A
 - Fixed Frequency Oscillator (72 kHz) with On-Chip Timing
 - Provides 5.05 V Output without External Resistor Divider
 - Precision 2% Reference
 - 0% to 95% Output Duty Cycle
 - Cycle-by-Cycle Current Limiting
 - Undervoltage Lockout with Hysteresis
 - Internal Thermal Shutdown
 - Operation from 7.5 V to 40 V
 - Standby Mode Reduces Power Supply Current to 36 μ A
- For more features, see the data sheet

Applications

- Digital TV (LCD, PDP)
- Efficient system pre-regulator for linear voltage regulators
- Battery chargers

Part Electrical Specifications

Product	Pricing (\$/Unit)	Compliance	Status	Topology	Control Mode	V _{CC} Min (V)	V _{CC} Max (V)	V _O Typ (V)	I _O Typ (A)	Efficiency (%)	f _{sw} Typ (kHz)	Package Type
MC33167D2TG	2	Pb-free Halide free	Active	Step-Down	Voltage Mode	7.5	40	5.0 to 40	5	80	72	D ² PAK-5
MC33167D2TR4G	2	Pb-free Halide free	Active	Step-Down	Voltage Mode	7.5	40	5.0 to 40	5	80	72	D ² PAK-5
MC33167TG	1.92	Pb-free Halide free	Active	Step-Down	Voltage Mode	7.5	40	5.0 to 40	5	80	72	TO-220-5
MC33167THG	1.5066	Pb-free Halide free	Active	Step-Down	Voltage Mode	7.5	40	5.0 to 40	5	80	72	TO-220-5
MC33167TVG	1.5066	Pb-free Halide free	Active	Step-Down	Voltage Mode	7.5	40	5.0 to 40	5	80	72	TO-220-5

For more information please contact your local sales support at www.onsemi.com.

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