

FEATURES

- Internal LDO allows single 21V operation
- Output Voltage Range: 0.5V to 0.875*PVin
- 0.5% accurate Reference Voltage
- Programmable Switching Frequency up to 1.5MHz using Rt/Sync pin or PMBus
- Internal Soft-Start with Pre-Bias Start-up
- Enable input with Voltage Monitoring Capability
- Remote Sense Amplifier with True Differential Voltage Sensing
- Fast mode I2C and 400 kHz PMBus interface for sequencing, margining and telemetry.
- PMBus configurable fault thresholds for input UVLO, output OVP, OCP and thermal shutdown.
- Thermally compensated pulse-by-pulse current limit and Hiccup Mode Over Current Protection
- Optional light load efficiency mode with reduced switching frequency
- External synchronization with Smooth Clocking
- Dedicated output voltage sensing protection which remains active even when Enable is low.
- Integrated MOSFET drivers and Bootstrap diode
- Operating junction temp: $-40^{\circ}\text{C} < T_j < 125^{\circ}\text{C}$
- Small Size 5mmx7mm PQFN
- Pb-Free (RoHS Compliant)

DESCRIPTION

The IR38063 SupIRBuck™ is an easy-to-use, fully integrated and highly efficient DC/DC regulator with I2C/PMBus interface. The onboard PWM controller and MOSFETs make IR38063 a space-efficient solution, providing accurate power delivery for low output voltage and high current applications.

IR38063 is a versatile regulator which offers programmability of switching frequency and current limit while operating in wide input and output voltage range.

The switching frequency is programmable from 250 kHz to 1.5MHz for an optimum solution.

It also features important protection functions, such as

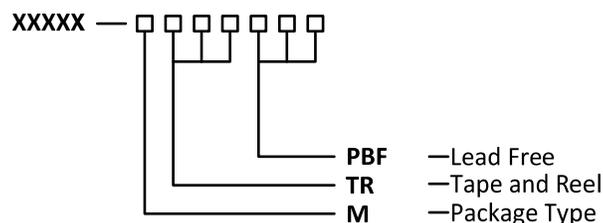
Pre-Bias startup, hiccup current limit and thermal shutdown to give required system level security in the event of fault conditions

APPLICATIONS

- Server Applications
- Netcomm applications
- Embedded telecom Systems
- Distributed Point Of Load Architectures

ORDERING INFORMATION

Base Part Number	Package Type	Standard Pack		Orderable Part Number
		Form	Quantity	
IR38063	QFN 5 mm x 7 mm	Tape and Reel	4000	IR38063MTRPBF



BASIC APPLICATION

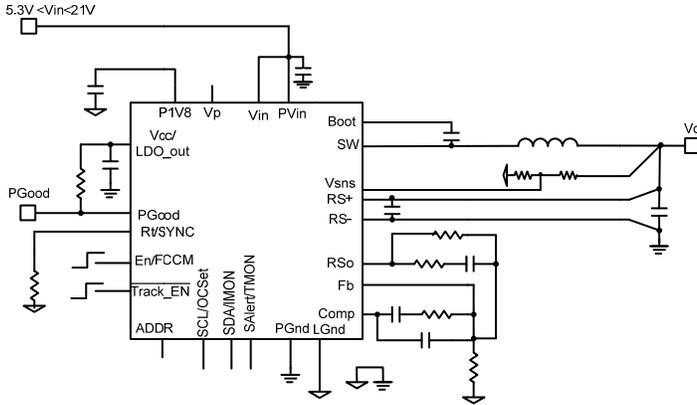


Figure 1: Typical Application Circuit

Figure 2: Performance Curve

PINOUT DIAGRAM

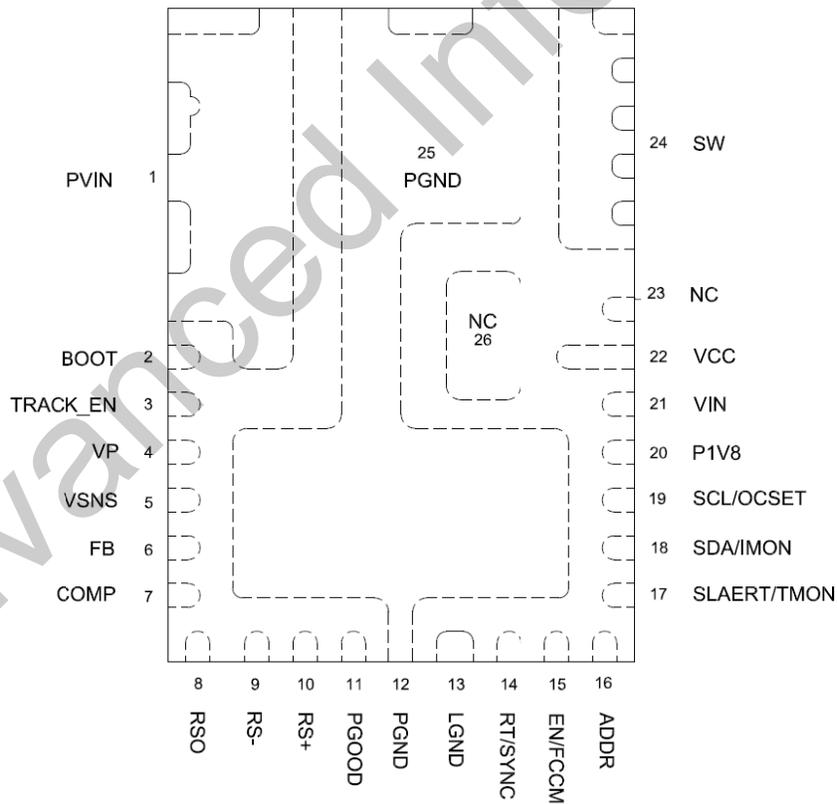


Figure 3: IR38063 package (Top View) 5mm x 7mm PQFN