

0.5A Step - Down Switching Regulator 150kHz, Switching Converters, Regulators & Controllers 0.5A BUCK SW REG 150KHZ

Manufacturers	<u>ON Semiconductor, LLC</u>
Package/Case	SOIC-8
Product Type	Power Management ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for LM2594DADJR2G or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

RFQ

General Description

The LM2594xx series of regulators are monolithic integrated circuits that provide all the active functions for a step-down (buck) switching regulator, capable of driving a 0.5-A load with excellent line and load regulation. These devices are available in fixed output voltages of 3.3 V, 5 V, 12 V, and an adjustable output version, and are packaged in a 8-pin PDIP and a 8-pin surface-mount SOIC package.

Requiring a minimum number of external components, these regulators are simple to use and feature internal frequency compensation, a fixed-frequency oscillator, and improved line and load regulation specifications.

The LM2594xx series operates at a switching frequency of 150-kHz, thus allowing smaller-sized filter components than what would be needed with lower-frequency switching regulators. Because of its high efficiency, the copper traces on the printed-circuit board are normally the only heat sinking needed.

A standard series of inductors (both through-hole and surface-mount types) are available from several different manufacturers optimized for use with the LM2594xx series. This feature greatly simplifies the design of switch-mode power supplies.

Other features include an ensured $\pm 4\%$ tolerance on output voltage under all conditions of input voltage and output load conditions, and $\pm 15\%$ on the oscillator frequency. External shutdown is included, featuring typically 85- μ A standby current. Self-protection features include a two stage frequency reducing current limit for the output switch and an overtemperature shutdown for complete protection under fault conditions.

The LM2594HV is for applications requiring an input voltage up to 60 V.

Application

ONSEMI

Features

- 3.3-V, 5-V, 12-V, and Adjustable Output Versions
- Adjustable Version Output Voltage Range: 1.2 V to 37 V (57 V for the HV Version), $\pm 4\%$ Maximum Over Line and Load Conditions
- Available in 8-Pin Surface-Mount SOIC and 8-Pin PDIP Packages
- Ensured 0.5-A Output Current
- Input Voltage Range up to 60 V
- Requires Only 4 External Components
- 150-kHz Fixed-Frequency Internal Oscillator
- TTL Shutdown Capability
- Low Power Standby Mode, I_Q Typically 85 μA
- High Efficiency
- Uses Readily-Available Standard Inductors
- Thermal Shutdown and Current-Limit Protection



Related Products



[NCP380LMUAJAATBG](#)

ON Semiconductor, LLC
uDFN-6



[LM2596DSADJR4G](#)

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D2PAK



[LM317MABDTRKG](#)

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