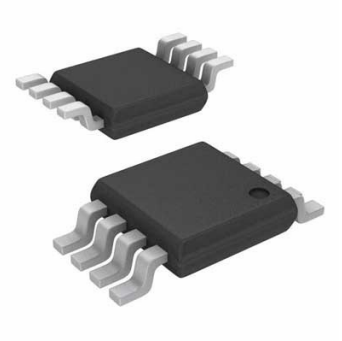
LM5007MMX/NOPB

Conv DC-DC 9V to 75V Step Down Single-Out 2.5V to 73V 0.5A 8-Pin VSSOP T/R



Images are for reference only

Inquiry

Manufacturer:	Texas Instruments, Inc
Package/Case:	MSOP8
Product Type:	Power Management ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

General Description

The LM5007 0.5-A step-down switching converter features all of the functions needed toimplement a low-cost and efficient buck regulator. This high-voltage converter has an integrated80-V, 0.7-A N-channel buck switch and operates over an input voltage range of 9 V to 75 V. Thedevice is easy to implement and is provided in 8-pin VSSOP and thermally enhanced 8-pin WSONpackages.

The converter uses a hysteretic control scheme with a PWM on-time inversely proportionalto VIN. This feature allows the operating frequency to remain relativelyconstant with load and input voltage variations. The hysteretic control requires no loopcompensation and provides fast transient response. An intelligent current limit is implemented withforced off-time that is inversely proportional to VOUT. This currentlimiting scheme ensures short-circuit protection while providing reduced load current foldback.Other protection features include thermal shutdown with automatic recovery,VCC and gate drive undervoltage lockout, and maximum duty cyclelimiter.

Key Features

Versatile Synchronous Buck DC/DCConverter
Operating Input Voltage Range of 9 V to 75 V

Integrated 80-V, 0.7-A N-Channel Buck Switch

InternalHigh-Voltage VCC Regulator

Adjustable OutputVoltage

High EfficiencyOperation

Adaptive Constant On-Time ControlArchitecture
Ultra-Fast Transient Response

No Control Loop CompensationRequired

Nearly Constant Switching Frequency
PWM On-Time Varies Inversely with InputVoltage

Precision 2.5-VReference

Low Input Quiescent Current

Inherent Protection for Robust Design
Intelligent Current Limit Protection

VCC and Gate DriveUVLO Protection

Thermal Shutdown Protection With Hysteresis

ExternalShutdown Control

8-Pin VSSOP and WSONPackages

Create a Custom Regulator Design UsingWEBENCH? Power Designer

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Recommended For You

LM2637M	LM5116MH	LM234Z-3
Texas Instruments, Inc	Texas Instruments, Inc	Texas Instruments, Inc
SOP24	TSSOP20	TO-92

LM27761DSGR

Texas Instruments, Inc

WSON8

LM74700QDBVRQ1

Texas Instruments, Inc

SOT23-6

LM2991S

Texas Instruments, Inc

TO-263

LM74800QDRRRQ1

Texas Instruments, Inc

WSON-12

LMR14030SDDAR

Texas Instruments, Inc

SOP8

LM2940CT-12

Texas Instruments, Inc

TO-220

LM536035QPWPTQ1

Texas Instruments, Inc

HTSSOP-16

LM5575MH

Texas Instruments, Inc

TSSOP16

LM536013QDSXTQ1

Texas Instruments, Inc

WSON-10

LM5160QPWPRQ1

Texas Instruments, Inc

HTSSOP14

LM5576MH

Texas Instruments, Inc

TSSOP20

LMQ61460AFSQRJRRQ1

Texas Instruments, Inc

VQFN-14