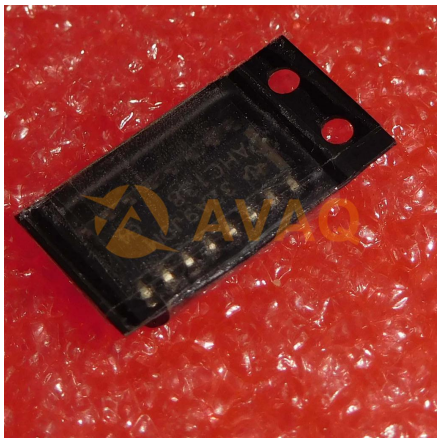
SN74AHC138D

Decoder/Demultiplexer Single 3-to-8 16-Pin SOIC Tube

Manufacturer:	Texas Instruments, Inc
Package/Case:	SOIC
Product Type:	Logic ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

The LM25118 wide voltage range Buck-Boost switching regulator controller features all of the functions necessary to implement a high-performance, cost-efficient Buck-Boost regulator using a minimum of external components. The Buck-Boost topology maintains output voltage regulation when the input voltage is either less than or greater than the output voltage making it especially suitable for automotive applications. The LM25118 operates as a buck regulator while the input voltage is sufficiently greater than the regulated output voltage and gradually transitions to the buck-boost mode as the input voltage approaches the output. This dual-mode approach maintains regulation over a wide range of input voltages with optimal conversion efficiency in the buck mode and a glitch-free output during mode transitions. This easy-to-use controller includes drivers for the high-side buck MOSFET and the low-side boost MOSFET. The control method of the regulator is based upon current mode control using an emulated current ramp. Emulated current mode control reduces noise sensitivity of the pulse-width modulation circuit, allowing reliable control of the very small duty cycles necessary in high input voltage applications. Additional protection features include current limit, thermal shutdown, and an enable input. The device is available in a power-enhanced, 20-pin HTSSOP package featuring an exposed die attach pad to aid thermal dissipation.

Key Features

Input Voltage Operating Range From 3 V to 42 V

Emulated Peak Current Mode Control

Smooth Transition Between Step-Down and Step-Up Modes

Switching Frequency Programmable to 500 KHz

Oscillator Synchronization Capability

Internal High Voltage Bias Regulator

Integrated High and Low-Side Gate Drivers

Programmable Soft-Start Time

Ultra-Low Shutdown Current

Enable Input

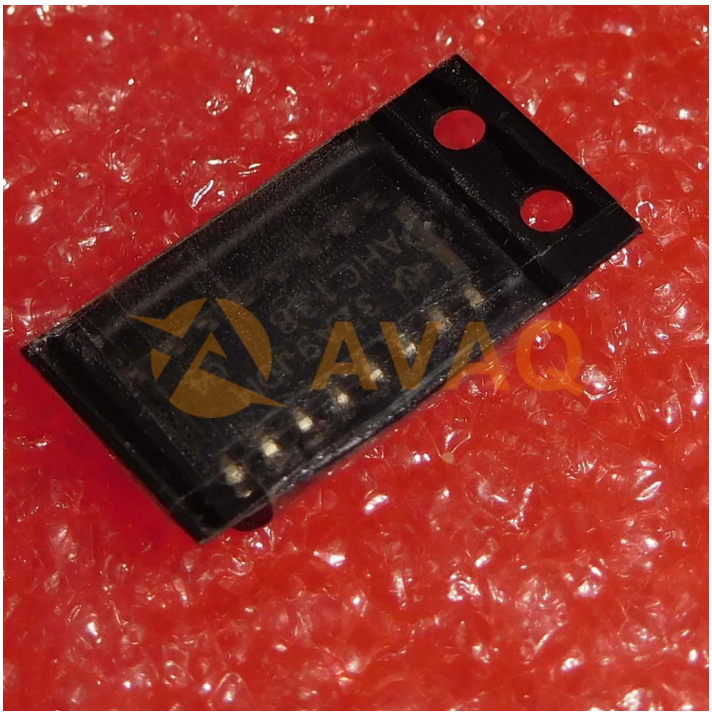
Wide Bandwidth Error Amplifier

1.5% Feedback Reference Accuracy

Thermal Shutdown

Package: 20-Pin HTSSOP (Exposed Pad)

Create a Custom Design Using the LM25118 With the WEBENCH Power Designer



Recommended For You

SN74S38N

Texas Instruments, Inc

DIP

SN7438N

Texas Instruments, Inc

DIP14

SN75462P

Texas Instruments, Inc

DIP8

SN74F08D

Texas Instruments, Inc

SOP-14

SN74LS257BN

Texas Instruments, Inc

DIP16

SN75452BP

Texas Instruments, Inc

DIP8

SN74LS245DW

Texas Instruments, Inc

SOP20

SN74LS74AN

Texas Instruments, Inc

DIP

SN74S74N

Texas Instruments, Inc

DIP

SN7406N

Texas Instruments, Inc

DIP-14

SN74CBTLV3257D

Texas Instruments, Inc

SOP-16P

SN74HC138DR

Texas Instruments, Inc

SOP16

SN74LS14N

Texas Instruments, Inc

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SN74HC139N

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SN74AVC16T245DGGR

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TSSOP48