LM74500QDDFRQ1

OR Controller N-Channel Single Automotive 8-Pin TSOT-23 T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	SOT23-8
Product Type:	Power Management ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

LM74500QDDFRQ1 Image

Images are for reference only

Inquiry

General Description

The LM74500-Q1 is an automotive AEC Q100 qualified controller which operates in conjunction with an external N-channel MOSFET as a low loss reverse polarity protection solution. The wide supply input range of 3.2 V to 65 V allows control of many popular DC bus voltages such as 12-V, 24-V and 48-V automotive battery systems. The 3.2-V input voltage support is particularly well suited for severe cold crank requirements in automotive systems. The device can withstand and protect the loads from negative supply voltages down to –65 V. The LM74500-Q1 does not have reverse current blocking and is suitable for input reverse poalrity protection of loads that can potentially deliver energy back to the input supply such as automotive body control module motor loads. The LM74500-Q1 controller provides a charge pump gate drive for an external N-channel MOSFET. The high voltage rating of LM74500-Q1 helps to simplify the system designs for automotive ISO7637 protection. With the enable pin low, the controller is off and draws approximately 1 µA of current thus offering low system current when put into sleep mode.

Key Features

AEC-Q100 qualified with the following results
Device temperature grade 1: –40°C to +125°C ambient operating temperature range

Device HBM ESD classification level 2

Device CDM ESD classification level C4B

3.2-V to 65-V input range (3.9-V start up)

–65-V input reverse voltage rating

Charge pump for external N-Channel MOSFET

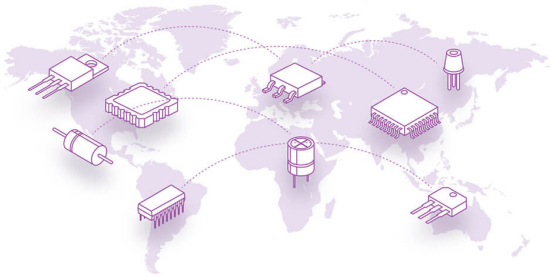
Enable pin feature

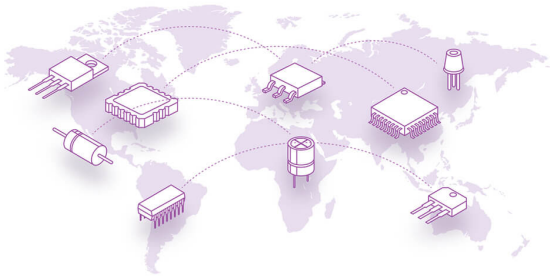
1-µA shutdown current (EN=Low)

80-µA typical operating quiescent current (EN=High)

Meets automotive ISO7637 pulse 1 transient requirements with additional TVS Diode

Available in 8-pin SOT-23 package 2.90 mm × 1.60 mm





Recommended For You

LM2637M
Texas Instruments, Inc
SOP24

LM5116MH
Texas Instruments, Inc
TSSOP20

LM234Z-3
Texas Instruments, Inc
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