UCC27322QDGNRQ1

Driver 9A 1-OUT Low Side Non-Inv Automotive 8-Pin HVSSOP EP T/R

Manufacturer:	Texas Instruments, Inc
Package/Case:	HVSSOP-8
Product Type:	Drivers
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active

UCC27322QDGNRQ1 Image

Images are for reference only

Inquiry

General Description

The UCC2732x-Q1 family of high-speed drivers delivers 9 A of peak drive current in an industry-standard pinout. These drivers can drive large MOSFETs for systems requiring extreme Miller current due to high dV/dt transitions. This eliminates additional external circuits and can replace multiple components to reduce space, design complexity, and assembly cost. Two standard logic options are offered, inverting (UCC27321-Q1) and noninverting (UCC27322-Q1). Using a design that minimizes shoot-through current, the outputs of these devices can provide high gate drive current where it is most needed at the Miller plateau region during the MOSFET switching transition. A unique hybrid-output stage paralleling bipolar and MOSFET transistors (TrueDrive) allows efficient current delivery at low supply voltages. With this drive architecture, UCC2732x-Q1 can be used in industry standard 6-A, 9-A, and many 12-A driver applications. Latch-up and ESD protection circuits are also included. Finally, the UCC2732x-Q1 provides an enable (ENBL) function to better control the operation of the driver applications. ENBL is implemented on pin 3, which was previously left unused in the industry-standard pinout. It is internally pulled up to VDD for active-high logic and can be left open for standard operation.

In addition to 8-pin SOIC (D) package offerings, the UCC2732x-Q1 also comes in the thermally enhanced but tiny 8-pin MSOP-PowerPAD (DGN) package. The PowerPAD package drastically lowers the thermal resistance to extend the temperature operation range and improve long-term reliability.

Key Features

Qualified for Automotive Applications

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 C6

Industry-Standard Pinout With Addition of Enable Function

High Peak-Current Drive Capability of ±9 A at the Miller Plateau Region Using TrueDrive Technology

Efficient Constant-Current Sourcing Using a Unique Bipolar and CMOS Output Stage

TTL and CMOS-Compatible Inputs Independent of Supply Voltage

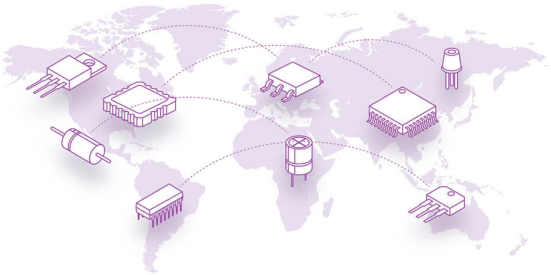
20-ns Typical Rise and 15-ns Typical Fall Times With 10-nF Load

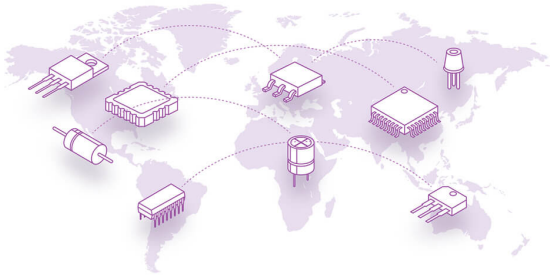
Typical Propagation Delay Times of 25 ns With Input Falling and 35 ns With Input Rising

4-V to 15-V Supply Voltage

Available in Thermally Enhanced MSOP PowerPAD Package

TrueDrive Output Architecture Using Bipolar and CMOS Transistors in Parallel





AVAQ

AVAQ

Recommended For You

UCC28064ADR	**UC3637N**	**UCC27517DBVR**
Texas Instruments, Inc	Texas Instruments, Inc	Texas Instruments, Inc
SOP16	DIP-18	SOT23-5

UCC2946TPWRQ1

Texas Instruments, Inc

TSSOP8

UCC28730QDRQ1

Texas Instruments, Inc

SOP7

UCC21222QDRQ1

Texas Instruments, Inc

SOP16

UCD9090QRGZRQ1

Texas Instruments, Inc

VQFN-48

UCC27531QDBVRQ1

Texas Instruments, Inc

SOT23-6

UCC27511AQDBVRQ1

Texas Instruments, Inc

SOT23-6

UCC2803QDRQ1

Texas Instruments, Inc

SOP8

UCC28951QPWRQ1

Texas Instruments, Inc

TSSOP24

UCC21320QDWKRQ1

Texas Instruments, Inc

SOIC-14

UCC28950QPWRQ1

Texas Instruments, Inc

TSSOP24

UCC2808AQDR-2Q1

Texas Instruments, Inc

SOP8

UCC27524AQDRQ1

Texas Instruments, Inc

SOP8