

DDR Termination Regulator 2.375V to 3.5V Automotive 10-Pin VSON EP T/R

Manufacturer:	Texas Instruments, Inc	<input type="text" value="TPS51200QDRCRQ1 Image"/>
Package/Case:	SON10	Images are for reference only
Product Type:	Power Management ICs	<input type="button" value="Inquiry"/>
RoHS:	RoHS Compliant/Lead free 	
Lifecycle:	Active	

General Description

The TPS51200-Q1 device is a sink and source double-data-rate (DDR) termination regulator specifically designed for low input voltage, low-cost, low-noise systems where space is a key consideration.

The TPS51200-Q1 device maintains a fast transient response and only requires a minimum output capacitance of 20 μ F. The TPS51200-Q1 device supports a remote sensing function and all power requirements for DDR, DDR2, DDR3, DDR3L, Low Power DDR3 and DDR4 VTT bus termination.

In addition, the TPS51200-Q1 device provides an open-drain PGOOD signal to monitor the output regulation and an EN signal that can be used to discharge VTT during S3 (suspend to RAM) for DDR applications.

The TPS51200-Q1 device is available in the thermally-efficient VSON-10 package, and is rated both green and Pb-free. The device is specified from -40°C to 125°C .

Key Features

Qualified for Automotive Applications

AEC-Q100 Test Guidance With the Following Results:

Device Temperature Grade 1: -40°C to 125°C Ambient Operating Temperature

Device HBM ESD Classification Level 2

Device CDM ESD Classification Level C4B

Input Voltage: Supports 2.5-V Rail and 3.3-V Rail

VLDOIN Voltage Range: 1.1 V to 3.5 V

Sink/Source Termination Regulator Includes Droop Compensation

Requires Minimum Output Capacitance of 20- μ F (typically 3×10 - μ F MLCCs) for Memory Termination Applications (DDR)

PGOOD to Monitor Output Regulation

EN Input

REFIN Input Allows for Flexible Input Tracking Either Directly or Through Resistor Divider

Remote Sensing (VOSNS)

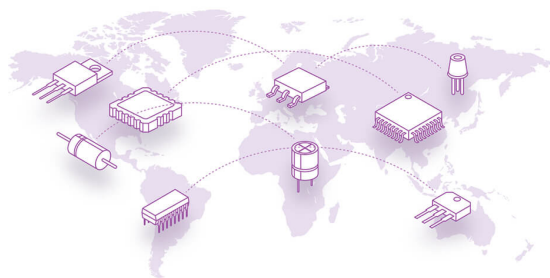
± 10 -mA Buffered Reference (REFOUT)

Built-in Soft Start, UVLO and OCL

Thermal Shutdown

Meets DDR, DDR2 JEDEC Specifications; Supports DDR3, DDR3L, Low-Power DDR3 and DDR4 VTT Applications

VSON-10 Package With Exposed Thermal Pad



Recommended For You

TPD3S014DBVR

Texas Instruments, Inc
SOT23-6

TPS2065CDBVR

Texas Instruments, Inc
SOT23-5

TPS2557DRBT

Texas Instruments, Inc
SON8

TPS2042BDR

Texas Instruments, Inc
SOP8

TPS2051BDR

Texas Instruments, Inc
SOP8

TPL7407LPWR

Texas Instruments, Inc
TSSOP16

TPS23753APWR

Texas Instruments, Inc
TSSOP14

TPS2116DRLR

Texas Instruments, Inc
SOT5X3-8

TPS259460ARPWR

Texas Instruments, Inc
VQFN-10

TPS23751PWPR

Texas Instruments, Inc
HTSSOP16

TPS65150QPWPRQ1

Texas Instruments, Inc
HTSSOP-24

TPS2410PWR

Texas Instruments, Inc
TSSOP-14

TPS22914BYFPR

Texas Instruments, Inc
DSBGA4

TPS2115ADRBR

Texas Instruments, Inc
VSON8

TPS2113ADRBR

Texas Instruments, Inc
SON8