

ESD Suppressor Diode Diode Array Uni-Dir 5.5V 16Vc Automotive 6-Pin SOT-23 T/R

Manufacturer:	Texas Instruments, Inc	TPD4E001QDBVRQ1 Image
Package/Case:	SOT23-6	Images are for reference only
Product Type:	Thyristors	Inquiry
RoHS:	RoHS Compliant/Lead free 	
Lifecycle:	Active	

General Description

The TPD4E001-Q1 device is a low-capacitance TVS diode array designed for ESD protection in sensitive electronics connected to communication lines. Each channel consists of a pair of transient-voltage-suppression diodes that steer ESD pulses to V_{CC} or GND. The TPD4E001-Q1 protects against ESD events up to ± 8 -kV contact discharge and ± 15 -kV air-gap discharge, as specified in IEC 61000-4-2 international standard. This device has a low capacitance of 1.5-pF per channel making it ideal for use in high-speed data interfaces. The low leakage current (10 nA maximum) ensures minimum power consumption for the system and high accuracy for analog interfaces.

Additionally, this device is ideal for protecting automotive head units, automotive rear seat entertainment, and automotive rear camera systems that use USB 2.0, Ethernet, or precision analog interfaces.

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 3B

HBM Level 15 kV

Device CDM ESD Classification Level C5

IEC 61000-4-2 Level 4 ESD Protection
 ± 8 -kV Contact Discharge

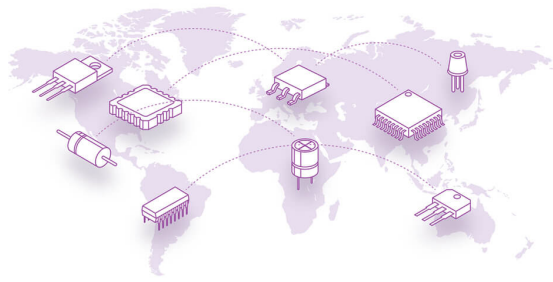
± 15 -kV Air-Gap Discharge

IEC 61000-4-5 Surge Protection
5.5 A (8/20 μs)

Low 1.5-pF Input Capacitance

Low 10-nA Maximum Leakage Current

0.9-V to 5.5-V Supply Voltage Range



Recommended For You

TPD4S012DRYR

Texas Instruments, Inc
SON6

TPD2E2U06QDBZRQ1

Texas Instruments, Inc
SOT23-3

TPD2E2U06QDCKRQ1

Texas Instruments, Inc
SC70-3

TPD13S523PWR

Texas Instruments, Inc
TSSOP-16

TPD2E001DRSR

Texas Instruments, Inc
QFN

TPD8S009DSMR

Texas Instruments, Inc
SON-15

TPD13S523RSVR

Texas Instruments, Inc
UQFN-16

TPD1E05U06QDPYRQ1

Texas Instruments, Inc
X1SON-2

TPD2E001IDRLRQ1

Texas Instruments, Inc
SOT-553

TPD4E02B04QDQARQ1

Texas Instruments, Inc
USON10

TPD4E05U06QDQARQ1

Texas Instruments, Inc
DFN10

TPD1E10B09QDPYRQ1

Texas Instruments, Inc
X1SON-2

TPD1E01B04DPYRQ1

Texas Instruments, Inc
X1SON-2

TPD1E10B06QDPYRQ1

Texas Instruments, Inc
X1SON-2

TPD4S1394DQLR

Texas Instruments, Inc
SON-8