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RS-422 Interface IC W/ANNEAL 16LD QD ESD 3 0V TO 5 5V 125

Manufacturers	Renesas Technology Corp
Package/Case	TSSOP-16
Product Type	Interface ICs
RoHS	
Lifecycle	
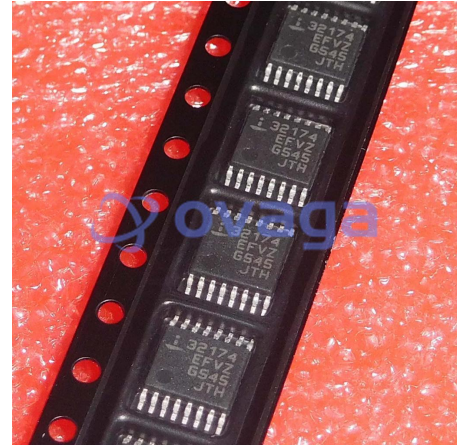
Images are for reference only

Please submit RFQ for ISL32174EFVZ or Email to us: sales@ovaga.com We will contact you in 12 hours.

RFQ

General Description

The ISL32172E, ISL32272E, ISL32174E, and ISL32179E are ±16.5kV IEC61000-4-2 ESD protected, 3.0V to 5.5V powered, QUAD transmitters for balanced communication using the RS-422 standard. These drivers have very low output leakage currents (±10µA), so they present a low load to the RS-422 bus.

The driver (Tx) outputs are tri-statable and incorporate a hot plug feature to keep them disabled during power-up and power-down. The ISL32172E and ISL32272E have a common EN/EN, the ISL32174E has a two channel EN12/EN34, and the ISL32179E has a versatile combination of individual and group channel enables (see Table 1).

Only the ISL32179E driver can be slew-rate limited, and only at the data rate of 0.46Mbps. Drivers on the other versions are not limited, so they can achieve 10Mbps or 32Mbps data rates. All versions are offered in industrial and extended industrial (-40°C to +125°C) temperature ranges.

The ISL32179E's QFN package has a 50% smaller footprint compared to the TSSOP. The ISL32179E also features a logic supply pin (VL) that sets the switching points of the enable and DI inputs to be compatible with a lower supply voltage in mixed voltage systems. Two speed select pins allow the ISL32179E to be configured for 460kbps, 10Mbps, or 32Mbps data rates. Individual channel and group enable pins increase the ISL32179E's flexibility.

Features

IEC61000 ESD protection on RS-422 outputs: ±16.5kV

Class 3 ESD level on all other pins: 12kV HBM

High machine model ESD level on all pins: 700V

Wide supply range: 3.0V to 5.5V

Specified for +125°C operation

Available in industry standard pinouts (ISL32172E, ISL32272E, ISL32174E) or in a space saving QFN (ISL32179E) with added features

Logic supply pin (V_L) eases operation in mixed supply systems (ISL32179E only)

User-selectable data rate (ISL32179E only)

Hot plug Tx outputs remain tri-stated during power-up and power-down

Low Tx leakage allows > 256 devices on the bus

High data rates: up to 32Mbps
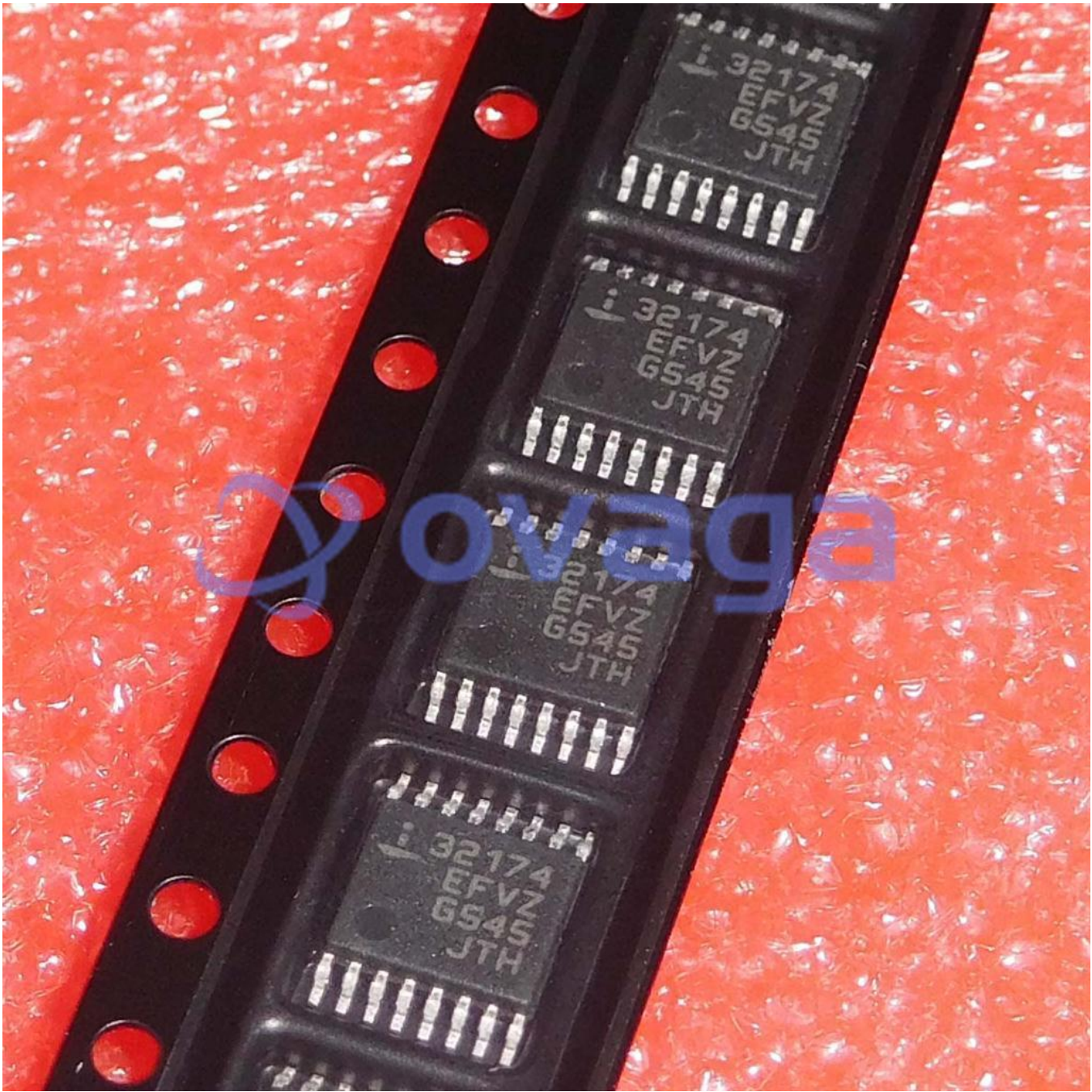
Low quiescent supply current: 0.8mA (maximum)

Low shutdown supply current: 60µA

Current limiting and thermal shutdown for driver overload protection

Tri-statable Tx outputs

5V tolerant logic inputs when $V_{CC} \leq 5V$

Pb-free (RoHS compliant)

Related Products

ISL83491IBZ

Renesas Technology Corp

SOIC-14

ISL3170EIUZ

Renesas Technology Corp

MSOP-10

ISL99227FRZ-T

Renesas Technology Corp

32-PowerWFQFN

ISL83078EIBZA

Renesas Technology Corp

SOIC-8

ISL83072EIBZA

Renesas Technology Corp

SOIC-8

ISL81487EIBZ

Renesas Technology Corp

SOP-8

IS82C55AZ

Renesas Technology Corp

PLCC-44

ISL83387EIVZ

Renesas Technology Corp

TSSOP-24