

## Automotive-Compliant Single-Gate LVC Logic Family

The 74LVC1GxxQ is a series of automotive-compliant single gate logic devices that are direct replacements for automotive industry LVC products.

They have been qualified to AEC-Q100 Grade 1 supporting ambient temperatures up to 125°C.

They are manufactured in IATF16949 certified facilities supporting the Production Part Approval Process (PPAP) documentation and specific process controls required by the automotive industry.

13 popular functions are available in the SOT25 and SOT353 packages.

Samples of all functions are available.



### The Diodes Advantage

- AEC-Q100 Qualified**  
 Devices are Grade 1 with a -40°C to 125°C temperature rating
- Wide Supply Voltage Range from 1.65V to 5.5V**  
 Supports 5V, 3.3V and core voltage rails
- Inputs Accept up to 5.5V Regardless of Vcc Level**  
 Increased robustness and use in voltage translation applications
- High Output Drive ( $\pm 24\text{mA}$ ) Capability**  
 Enables long track length drive
- Power Down Isolation**  
 Inputs and outputs are high impedance, when  $V_{cc}=0$

### Applications

- Infotainment logic interfaces
- Telematics
- ADAS

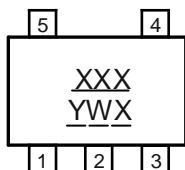
### Automotive-Compliant Single-Gate LVC Logic Product Portfolio

Orderable Part Number SOT25	Orderable Part Number SOT353	Description Automotive Single-Gate	V <sub>cc</sub> (min)	V <sub>cc</sub> (max)	t <sub>pd</sub>	Output Type	Marking Code
					at 3.3V		
74LVC1G00QW5-7	74LVC1G00QSE-7	2-Input NAND Gate	1.65V	5.5V	2.2 ns	push-pull	USQ
74LVC1G02QW5-7	74LVC1G02QSE-7	2-Input NOR Gate	1.65V	5.5V	2.1 ns	push-pull	UTQ
74LVC1G04QW5-7	74LVC1G04QSE-7	Inverter	1.65V	5.5V	2.0 ns	push-pull	UUQ
74LVC1G06QW5-7	74LVC1G06QSE-7	Open-Drain Inverter	1.65V	5.5V	2.3 ns	open drain	UMQ
74LVC1G07QW5-7	74LVC1G07QSE-7	Open-Drain Buffer	1.65V	5.5V	2.2 ns	open drain	UNQ
74LVC1G08QW5-7	74LVC1G08QSE-7	2-Input AND Gate	1.65V	5.5V	2.1 ns	push-pull	UVQ
74LVC1G14QW5-7	74LVC1G14QSE-7	Schmitt Trigger Inverter	1.65V	5.5V	3.0 ns	push-pull	UPQ
74LVC1G17QW5-7	74LVC1G17QSE-7	Schmitt Trigger Buffer	1.65V	5.5V	3.0 ns	push-pull	URQ
74LVC1G32QW5-7	74LVC1G32QSE-7	2-Input OR Gate	1.65V	5.5V	2.1 ns	push-pull	UWQ
74LVC1G34QW5-7	74LVC1G34QSE-7	Buffer	1.65V	5.5V	2.0 ns	push-pull	UKQ
74LVC1G86QW5-7	74LVC1G86QSE-7	2-Input Exclusive OR Gate	1.65V	5.5V	2.3 ns	push-pull	UXQ
74LVC1G125QW5-7	74LVC1G125QSE-7	3-State Buffer OE LOW	1.65V	5.5V	2.1 ns	3-state	UYQ
74LVC1G126QW5-7	74LVC1G126QSE-7	3-State Buffer OE HIGH	1.65V	5.5V	2.0 ns	3-state	UZQ

Further information: <https://www.diodes.com/products/automotive/automotive-products/logic/>

### Part Marking

(Top View )



SOT25 SOT353

XXX : Identification Code  
Y : Year 0-9  
W : Week: A-Z 1~ 26 week  
       a-z 27~ 52 week  
       z represents week 52 and 53  
       : A- Z: Internal Code