



New Product Announcement

74AHC1GxxQ
74AHCT1GxxQ

Automotive-Compliant Single-Gate AHC/T Logic Family Qualified to AEC-Q100 Grade 1

The 74AHC1GxxQ and 74AHCT1GxxQ are a series of automotive-compliant single gate logic devices used to buffer, invert or gate logic signals at a specific point within an application. Complex telematics, infotainment or ADAS subsystems may need a logic signal to be augmented to proceed to the next block. Automotive grade single point logic devices are designed to fulfill these requirements.

These families are manufactured in IATF16949 certified facilities supporting Production Part Approval Process (PPAP) documents and specific process control. They are qualified to AEC-Q100 Grade 1 and support ambient temperatures up to 125C.

21 popular functions are available SOT 25 and SOT353 packages.

Samples of all functions are available.



The Diodes Advantage

- **AEC-Q100 are Grade 1 Qualified**
Supports operation temperatures from -40°C to 125°C
- **Wide Supply Voltage Range from 2.0V to 5.5V for AHC**
Supports 5V, 3.3V and core voltage rails
AHCT version operates from 4.5 V to 5.5V
- **Inputs Accept up to 5.5V - regardless of Vcc level**
Increased robustness and use in voltage translation applications
- **Output drive ($\pm 8\text{mA}$) capability**
Minimal ringing for unterminated lines

Applications

- Infotainment logic interfaces
- ADAS's
- Telematics

Automotive-Compliant Single-Gate AHC/T Logic Product Portfolio

Orderable Part Number SOT25	Orderable Part Number SOT353	Description Automotive Single-Gate	V _{cc} (min)	V _{cc} (max)	t _{pd} at 4.5V	Output Type	Identification Code
74AHC1G00QW5-7	74AHC1G00QSE-7	2-Input NAND Gate	2.0V	5.5V	4.9ns	push-pull	YRQ
74AHC1G02QW5-7	74AHC1G02QSE-7	2-Input NOR Gate	2.0V	5.5V	4.6ns	push-pull	YSQ
74AHC1G04QW5-7	74AHC1G04QSE-7	Inverter	2.0V	5.5V	4.5 ns	push-pull	YTQ
74AHC1G07QW5-7	74AHC1G07QSE-7	Open-Drain Buffer	2.0V	5.5V	6.0ns	open drain	YKQ
74AHC1G08QW5-7	74AHC1G08QSE-7	2-Input AND Gate	2.0V	5.5V	4.6ns	push-pull	YUQ
74AHC1G09QW5-7	74AHC1G09QSE-7	2-Input AND Gate with Open Drain	2.0V	5.5V	4.9ns	open drain	YNQ
74AHC1G14QW5-7	74AHC1G14QSE-7	Schmitt Trigger Inverter	2.0V	5.5V	4.6ns	push-pull	YVQ
74AHC1G32QW5-7	74AHC1G32QSE-7	2-Input OR Gate	2.0V	5.5V	4.6ns	push-pull	YWQ
74AHC1G86QW5-7	74AHC1G86QSE-7	2-Input Exclusive OR Gate	2.0V	5.5V	4.9ns	push-pull	YXQ
74AHC1G125QW5-7	74AHC1G125QSE-7	3-State Buffer OE LOW	2.0V	5.5V	4.8ns	3-state	YYQ
74AHC1G126QW5-7	74AHC1G126QSE-7	3-State Buffer OE HIGH	2.0V	5.5V	4.8ns	3-state	YZQ
74AHCT1G00QW5-7	74AHCT1G00QSE-7	2-Input NAND Gate, TTL compatible	4.5V	5.5V	5.0ns	push-pull	ZRQ
74AHCT1G02QW5-7	74AHCT1G02QSE-7	2-Input NOR Gate, TTL compatible	4.5V	5.5V	4.9ns	push-pull	ZSQ
74AHCT1G04QW5-7	74AHCT1G04QSE-7	Inverter, TTL compatible	4.5V	5.5V	4.9ns	push-pull	ZTQ
74AHCT1G07QW5-7	74AHCT1G07QSE-7	Open-Drain Buffer, TTL compatible	4.5V	5.5V	5.5ns	open drain	ZPQ
74AHCT1G08QW5-7	74AHCT1G08QSE-7	2-Input AND Gate, TTL compatible	4.5V	5.5V	5.1ns	push-pull	ZUQ
74AHCT1G14QW5-7	74AHCT1G14QSE-7	Schmitt Trigger Inverter, TTL compatible	4.5V	5.5V	5.9s	push-pull	ZVQ
74AHCT1G32QW5-7	74AHCT1G32QSE-7	2-Input OR Gate, TTL compatible	4.5V	5.5V	4.8ns	push-pull	ZWQ
74AHCT1G86QW5-7	74AHCT1G86QSE-7	2-Input Exclusive OR Gate, TTL compatible	4.5V	5.5V	5.0ns	push-pull	ZXQ
74AHCT1G125QW5-7	74AHCT1G125QSE-7	3-State Buffer OE LOW, TTL compatible	4.5V	5.5V	4.8ns	3-state	ZYQ
74AHCT1G126QW5-7	74AHCT1G126QSE-7	3-State Buffer OE HIGH, TTL compatible	4.5V	5.5V	4.8ns	3-state	ZZQ

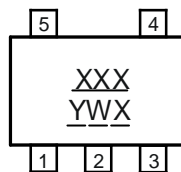
All parts are available in 7" (-7suffix) reels with 3000 units per reel and are MSL1 in green mold packaging.

To find out more information visit:

<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 an

: A~Z : Internal Code