



# Shift Registers and Decoders available in Four CMOS Logic Families

## New Functions

- 138 3 to 8 line decoder
- 594 8 bit shift register with 8 bit storage register
- 595 8 bit shift register with 8 bit storage register 3-state outputs

## Four families of parts including:

### 74HC - High speed CMOS

- 2.0V to 6.0V
- 4mA drive capability

### 74HCT - High speed CMOS

- 4.5V to 5.5V
- 4mA drive capability
- TTL compatible

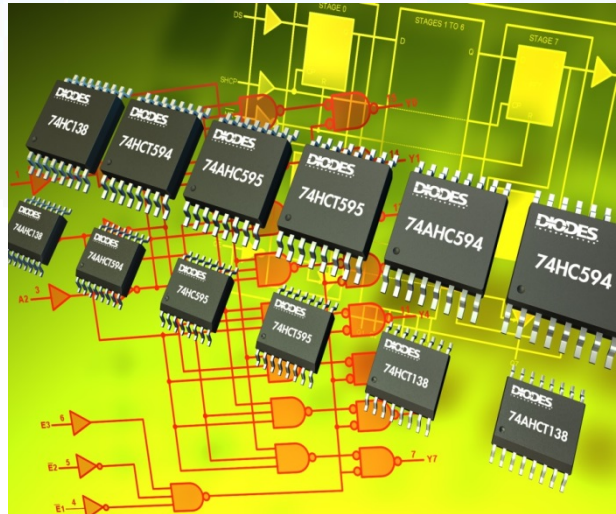
### 74AHC - Advanced High speed CMOS

- 2.0V to 5.5V
- 8mA drive capability

### 74AHCT - Advanced High speed CMOS

- 4.5V to 5.5V
- 8mA drive capability
- TTL compatible

Both SO-16 and TSSOP-16 packages are available.



## The Diodes Advantage

### Wide Supply Voltage Ranges

The recommended operating voltage range is  $V_{CC}$  from 2.0 to 6.0V. This allows a wide range of applications including 5V legacy systems.

### Noise rejection circuitry

All of the devices in this release include a small amount of input hysteresis making less susceptible to problems from slow rising or falling signals.

### Direct Replacement

The 74HC,HCT,AHC,AHCT devices are direct replacements for the industry standard devices providing better value and improved availability.



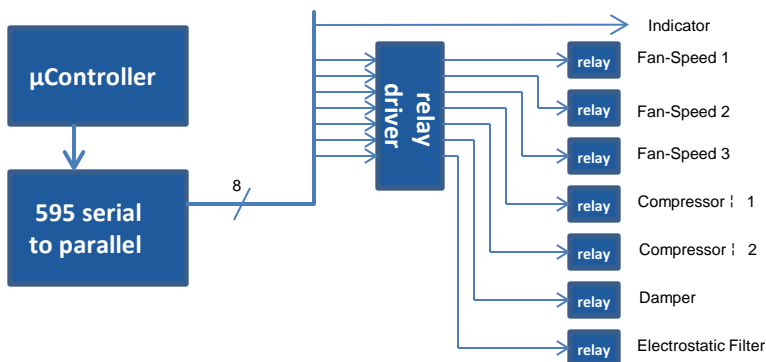
# New Product Announcement

## LOGIC

### 74HC/HCT 74AHC/AHCT Cross Reference

Diodes Device	Package	Description	TI	NXP	ON	Fairchild
74AHC138S16-13	SO-16	3-to-8 Line Decoder Demultiplexer	SN74AHC138DR	74AHC138D	MC74VHC138DR2G	74VHC138MX
74AHC138T16-13	TSSOP-16		SN74AHC138PWR	74AHC138PW	MC74VHC138DTR2G	74VHC138MTCX
74AHC594S16-13	SO-16	8-Bit Shift Register 8-Bit Output Register	SN74AHC594DR	74AHC594D		
74AHC594T16-13	TSSOP-16		SN74AHC594PWR	74AHC594PW		
74AHC595S16-13	SO-16	8-Bit Shift Register 8-Bit Output Register with 3-state outputs	SN74AHC595DR	74AHC595D	MC74VHC595DR2G	74VHC595MX
74AHC595T16-13	TSSOP-16		SN74AHC595PWR	74AHC595PW	MC74VHC595DTR2G	74VHC595MTCX
74AHCT138S16-13	SO-16	3-to-8 Line Decoder Demultiplexer	SN74AHCT138DR	74AHCT138D	MC74VHCT138ADR2G	
74AHCT138T16-13	TSSOP-16		SN74AHCT138PWR	74AHCT138PW	MC74VHCT138ADTRG	
74AHCT594S16-13	SO-16	8-Bit Shift Register 8-Bit Output Register	SN74AHCT594DR	74AHCT594D		
74AHCT594T16-13	TSSOP-16		SN74AHCT594PWR	74AHCT594PW		
74AHCT595S16-13	SO-16	8-Bit Shift Register 8-Bit Output Register with 3-state outputs TTL compatible	SN74AHCT595DR	74AHCT595D		
74AHCT595T16-13	TSSOP-16		SN74AHCT595PWR	74AHCT595PW		
74HC138S16-13	SO-16	3-to-8 Line Decoder Demultiplexer	SN74HC138DR	74HC138D	MC74HC138ADR2G	MM74HC138MX
74HC138T16-13	TSSOP-16		SN74HC138PWR	74HC138PW	MC74HC138ADTR2G	MM74HC138MTCX
74HC594S16-13	SO-16	8-Bit Shift Register 8-Bit Output Register	SN74HC594DR	74HC594D		
74HC594T16-13	TSSOP-16		SN74HC594PWR	74HC594PW		
74HC595S16-13	SO-16	8-Bit Shift Register 8-Bit Output Register with 3-state outputs	SN74HC595DR	74HC595D	MC74HC595ADR2G	MM74HC595MX
74HC595T16-13	TSSOP-16		SN74HC595PWR	74HC595PW	MC74HC595ADTR2G	MM74HC595MTCX
74HCT138S16-13	SO-16	3-to-8 Line Decoder Demultiplexer	SN74HCT138DR	74HCT138D	MC74HCT138ADR2G	MM74HCT138MX
74HCT138T16-13	TSSOP-16		SN74HCT138PWR	74HCT138PW	MC74HCT138ADTR2G	MM74HCT138MTCX
74HCT594S16-13	SO-16	8-Bit Shift Register 8-Bit Output Register		74HCT594D		
74HCT594T16-13	TSSOP-16		TTL compatible		74HCT594PW	
74HCT595S16-13	SO-16	8-Bit Shift Register 8-Bit Output Register with 3-state outputs TTL compatible		74HCT595D	MC74HCT595ADR2G	
74HCT595T16-13	TSSOP-16				74HCT595PW	MC74HCT595ADTR2G

### Applications 595 / 594



The 595 can be used to expand the output capabilities of a simple microcontroller. The required state can be clocked into the 595 and asserted onto the outputs at a specific instant. The 595 can maintain the state indefinitely.

Conceptually this depicts an air conditioner but the part is used similarly in many types of appliances and industrial controls.

### Ordering Information

Package	Reel size	Tape Width	Quantity
SO-16	13"	12mm	2500
TSSOP-16	13"	12mm	2500

All devices are:

- Totally Lead-Free & Fully RoHS compliant
- Halogen and Antimony Free. "Green" Device

See [http://www.diodes.com/quality/lead\\_free.html](http://www.diodes.com/quality/lead_free.html)