AVAQ

Latched Driver IC

Manufacturer:	Microchip Technology, Inc
Package/Case:	18LPDIP
Product Type:	Logic ICs
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active
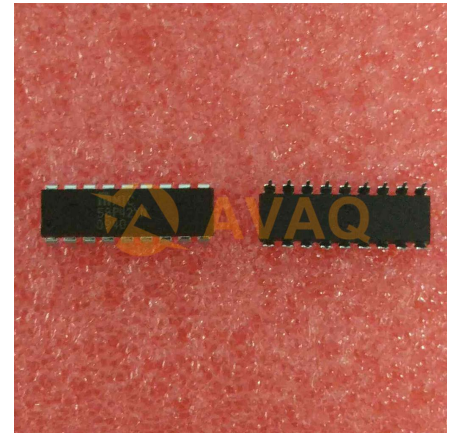
Images are for reference only

Inquiry

General Description

The MIC58P42 serial-input latched driver is a high-voltage (80V), high-current (500mA) integrated circuit comprised of eight CMOS data latches, a bipolar Darlington transistor driver for each latch, and CMOS control circuitry for the common STROBE, CLOCK, SERIAL DATA INPUT, and OUTPUT ENABLE functions. Similar to the MIC5842, additional protection circuitry supplied on this device includes thermal shutdown, under voltage lockout (UVLO), and over-current shutdown.The bipolar/CMOS combination provides an extremely low-power latch with maximum interface flexibility. The MIC58P42 has open-collector outputs capable of sinking 500 mA and integral diodes for inductive load transient suppression with a minimum output breakdown voltage rating of 80V (50V sustaining). The drivers can be operated with a split supply, where the negative supply is down to -20V and may be paralleled for higher load current capability.With a 5V logic supply, the MIC58P42 will typically operate at better than 5MHz. With a 12V logic supply, significantly higher speeds are obtained. The CMOS inputs are compatible with standard CMOS, PMOS, and NMOS circuits. TTL circuits may require pull-up resistors. By using the serial data output, drivers may be cascaded for interface applications requiring additional drive lines.Each of these eight outputs has an independent over current shutdown of 500 mA. Upon over-current detection, the affected channel will turn OFF until VDD is cycled or the ENABLE/RESET pin is pulsed high. Current pulses less than 2μs will not activate current shutdown. Temperatures above 165°C will shut down the device. The UVLO circuit prevents operation at low VDD; hysteresis of 0.5V is provided. See the MIC59P60 for a similar device that additionally provides an error flag output.

Key Features

3.3 MHz Minimum Data-Input Rate

CMOS, PMOS, NMOS, and TTL Compatible

Internal Pull-Up/Pull-Down Resistors

Low Power CMOS Logic and Latches

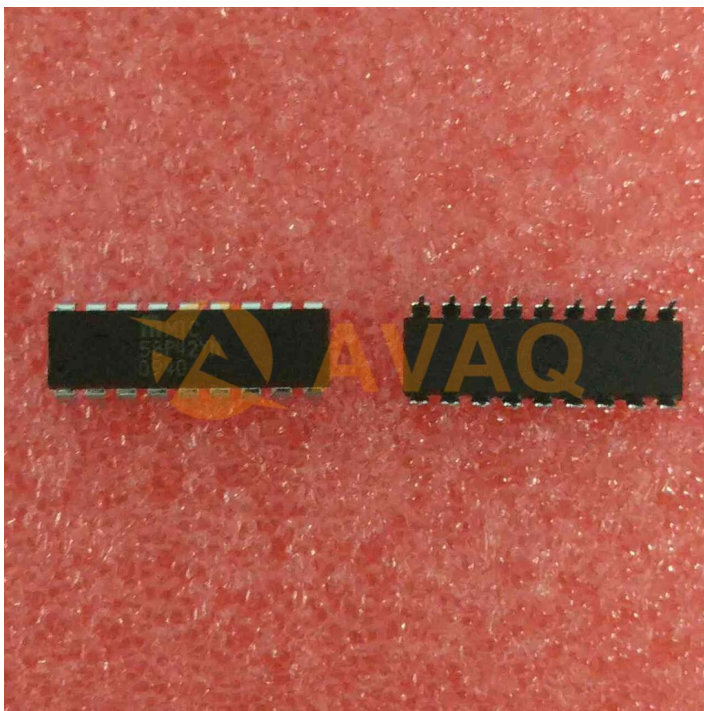High Voltage (80V) Current-Sink Outputs

Output Transient-Protection Diodes

Single or Split Supply Operation

Thermal Shutdown

Under-Voltage Lockout

Per-Output Over-Current Shutdown (500mA typical)

Recommended For You

MIC59P50BV

Microchip Technology, Inc

PLCC-20

MIC58P01YWM

Microchip Technology, Inc

SOP24

MIC5821YN

Microchip Technology, Inc

DIP16

MIC5800YN

Microchip Technology, Inc

DIP14

MIC59P50YWM

Microchip Technology, Inc

24-SOIC

MIC59P60YWM

Microchip Technology, Inc

20-SOIC

MIC59P50YV

Microchip Technology, Inc

PLCC-28

MIC58P01YWM-TR

Microchip Technology, Inc

SOIC

MICRF302YML-TR

Microchip Technology, Inc

VDFN

MIC58P01YV

Microchip Technology, Inc

PLCC-28

MIC5822YN

Microchip Technology, Inc

PDIP

HCS301-I/SN

Microchip Technology, Inc

SOP8

SY58017UMG

Microchip Technology, Inc

QFN

SY55855VKG

Microchip Technology, Inc

MSOP10

SY58606UMG

Microchip Technology, Inc

MLF-16