PRELIMINARY
Notice: This is not a final specification. Some parametric limits are subject to change.

MITSUBISHI HIGH SPEED CMOS

# M74HC279P/FP/DP

QUADRUPLE R-S LATCH

## DESCRIPTION

The M74HC279 is a semiconductor integrated circuit consisting of four R-S flip flops.

## FEATURES

- High speed: 15ns typ. ($C_L$=15pF, $V_{CC}$=5V)
- Low power dissipation: 5$\mu$W/package, max ($V_{CC}$=5V, $T_a$=25℃, quiescent state)
- High noise margin: 30% of $V_{CC}$, min ($V_{CC}$=4.5V, 6V)
- Capable of driving 10 74LSTTL loads
- Wide operating voltage range: $V_{CC}$=2~6V
- Wide operating temperature range: $T_a$=−40~+85℃

## APPLICATION

General purpose, for use in industrial and consumer digital equipment.

## FUNCTIONAL DESCRIPTION

Use of silicon gate technology allows the M74HC279 to maintain the low power dissipation and high noise margin characteristics of the standard CMOS logic 4000B series while giving high-speed performance equivalent to the 74LS279.

Two of the 4 circuits have set inputs $\overline{S_1}$ and $\overline{S_2}$ and reset input $\overline{R}$ and the other 2 circuits have set input $\overline{S}$ and reset input $\overline{R}$.

When $\overline{S_1}$ or $\overline{S_2}$ or both are low or $\overline{S}$ is low, the output Q will become high, and when R is low, the output Q will become low. When $\overline{S_1}$ or $\overline{S_2}$ or both are low and $\overline{R}$ is low, the output will become high but when each of the inputs simultaneously become high, the status of Q connot be predetermined.

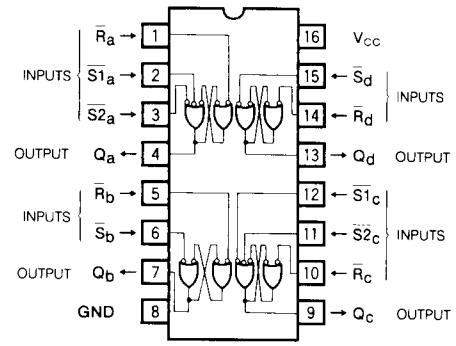
## FUNCTION TABLE (Note 1)

| Inputs | | Output |
|---|---|---|
| $\overline{S}$* | $\overline{R}$ | Q |
| H | H | $Q^0$ |
| H | L | L |
| L | H | H |
| L | L | H |

Note 1 : $Q^0$ : Output state Q before input conditions are set

* : When $\overline{S}$ consists of two inputs, H indicates $\overline{S_1}$ and $\overline{S_2}$ are both high, L indicates either $\overline{S_1}$ or $\overline{S_2}$ is low.

## PIN CONFIGURATION (TOP VIEW)




Outline 16P4, 16P2N, 16P2P

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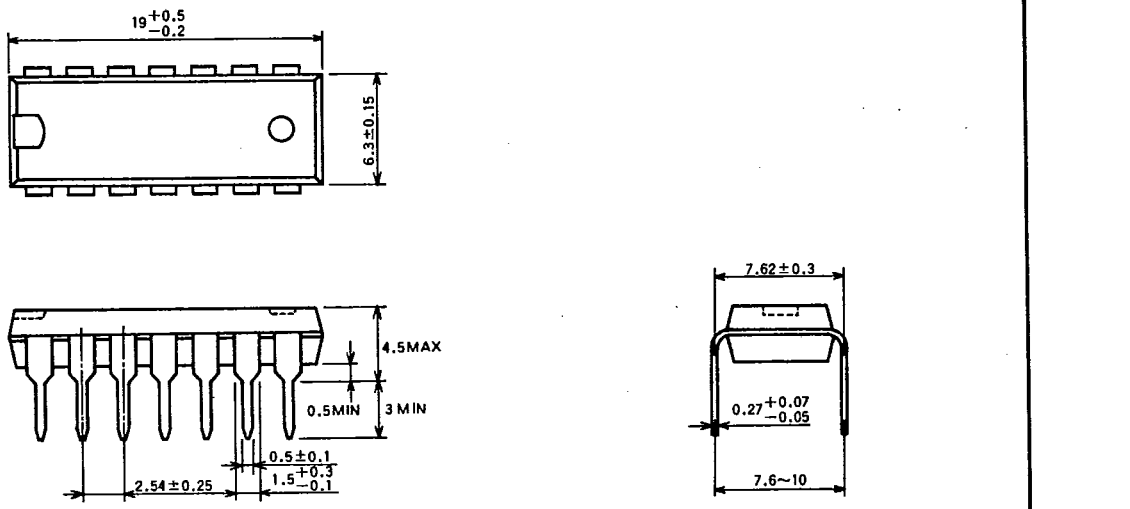
# PACKAGE OUTLINES



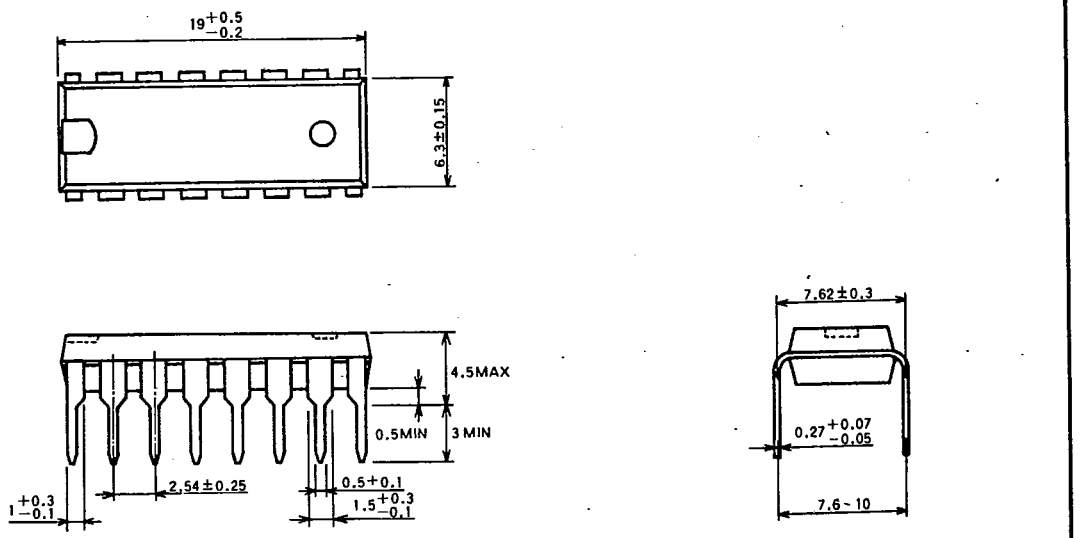
## TYPE 14P4 14-PIN MOLDED PLASTIC DIP

Dimension in mm




## TYPE 16P4 16-PIN MOLDED PLASTIC DIP

Dimension in mm



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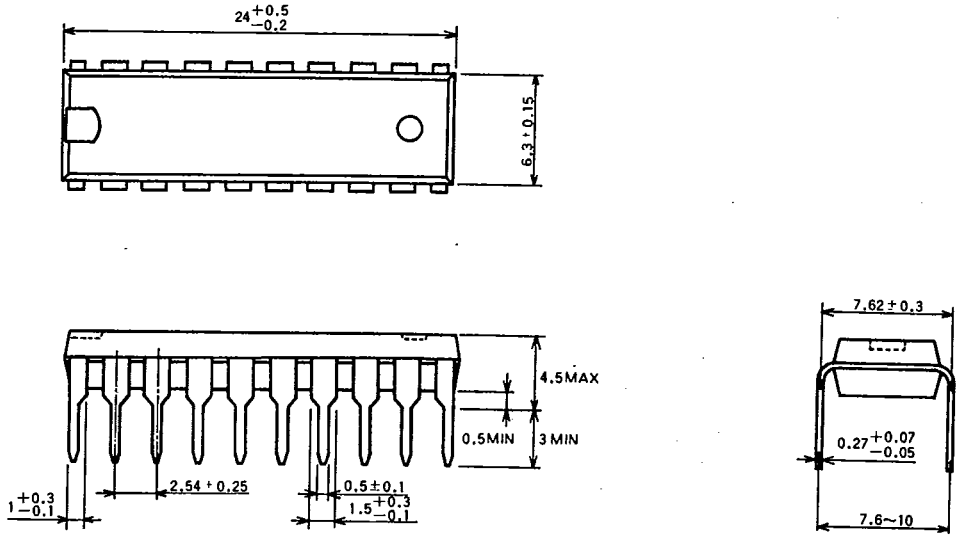
# PACKAGE OUTLINES



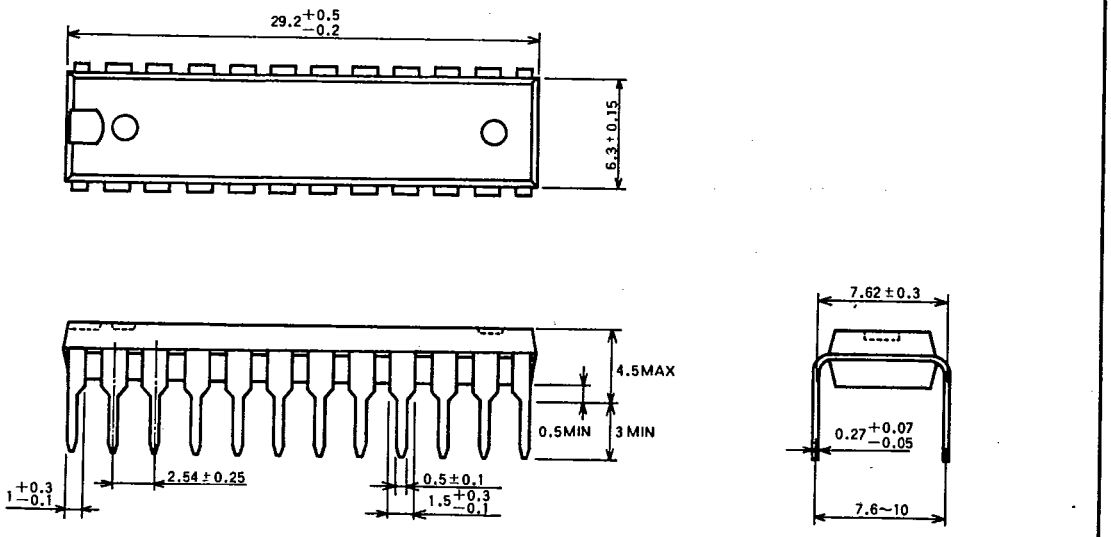
## TYPE 20P4 20-PIN MOLDED PLASTIC DIP

Dimension in mm




## TYPE 24P4D 24-PIN MOLDED PLASTIC DIP

Dimension in mm



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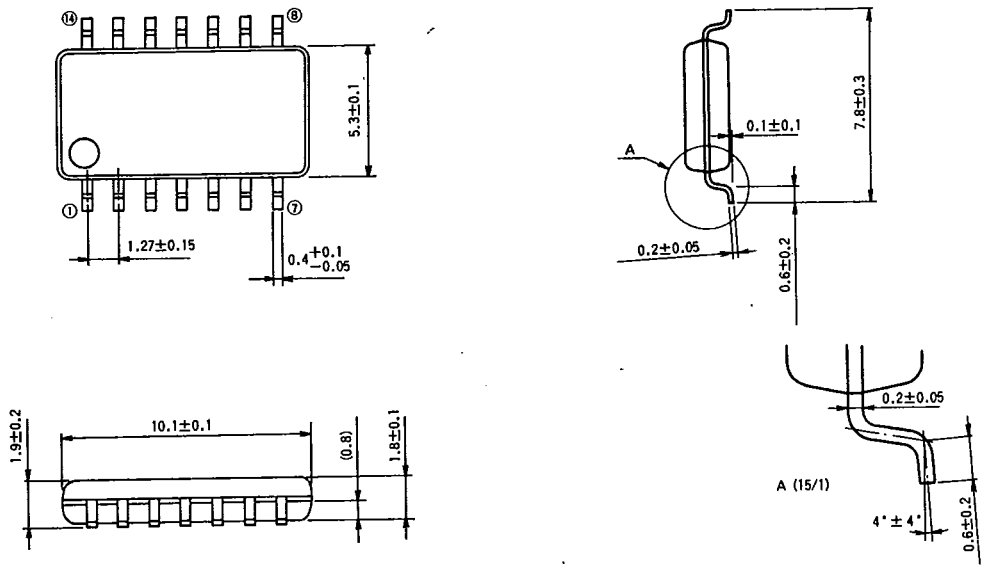
# PACKAGE OUTLINES



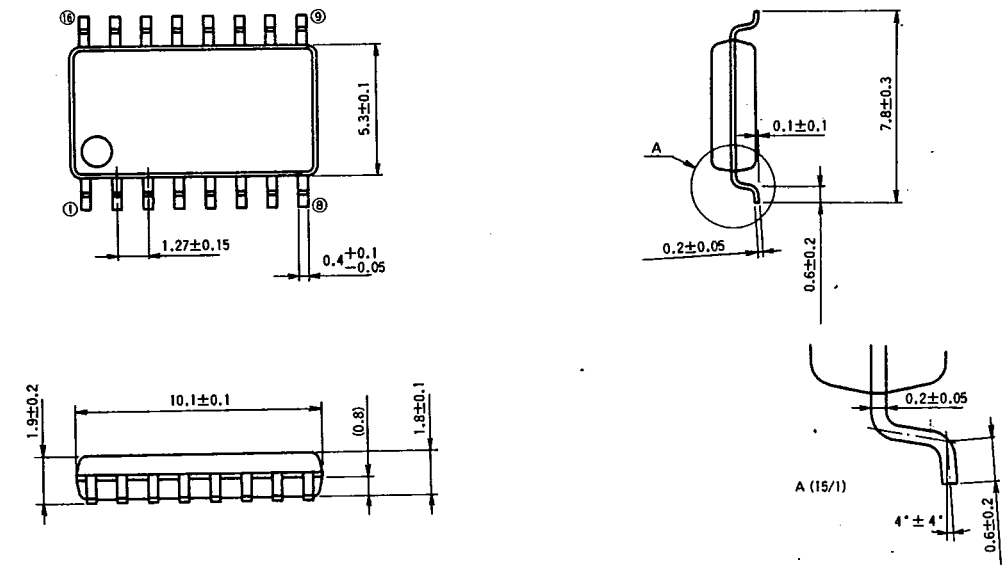
## TYPE 14P2N 14PIN MOLDED PLASTIC SOP

Dimension in mm




## TYPE 16P2N 16PIN MOLDED PLASTIC SOP

Dimension in mm

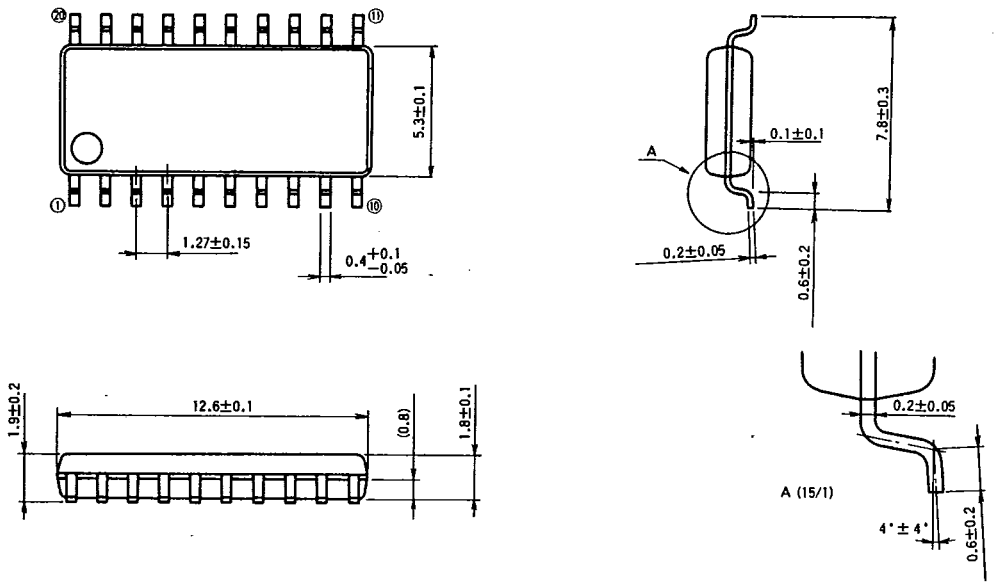


# PACKAGE OUTLINES



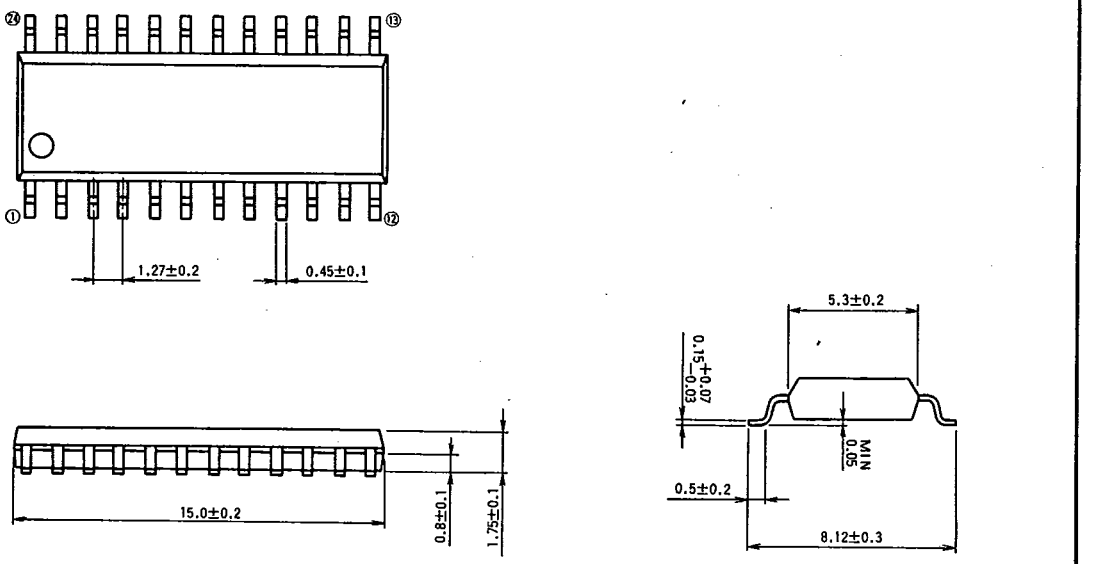
## TYPE 20P2N 20PIN MOLDED PLASTIC SOP

Dimension in mm




## TYPE 24P2 24PIN MOLDED PLASTIC SOP

Dimension in mm



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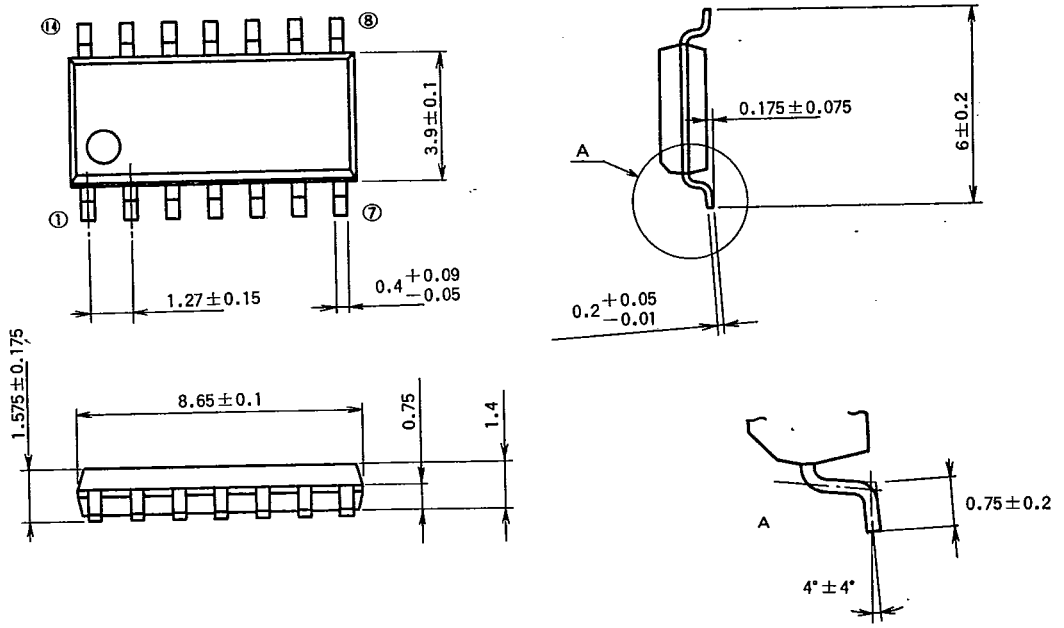
# PACKAGE OUTLINES



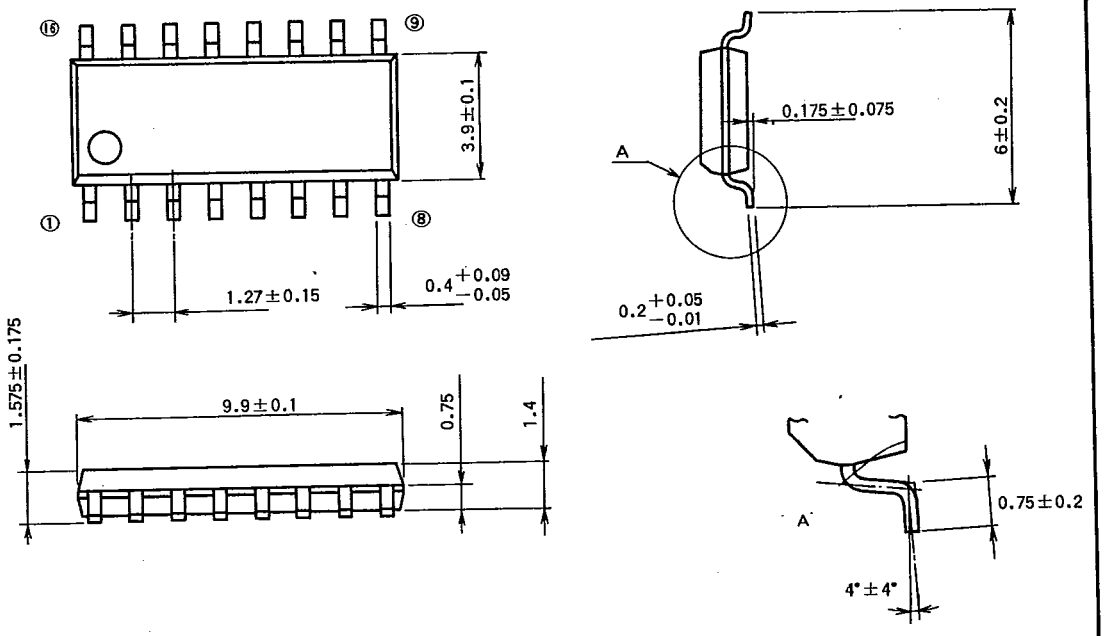
## TYPE 14P2P 14-PIN MOLDED PLASTIC SOP(JEDEC 150mil body)

Dimension in mm




## TYPE 16P2P 16-PIN MOLDED PLASTIC SOP(JEDEC 150mil body)

Dimension in mm



# PACKAGE OUTLINES



TYPE 20P2V 20-PIN MOLDED PLASTIC SOP(JEDEC 300mil body)

Dimension in mm