



225 MHz Prescaler

The MC12023 is a prescaler which will divide by 64. This device may be operated over a supply voltage range of 3.2 to 5.5 V.

- 225 MHz Toggle Frequency
- Low-Power 4.8 mA Maximum at 5.5 V
- Operating Supply Voltage of 3.2 to 5.5 V
- Connecting Pins 2 and 3 Allows Driving One TTL Load

MAXIMUM RATINGS

Characteristic	Symbol	Range	Unit
Power Supply Voltage	V _{CC}	0 to 8.0	V _{dc}
Operating Temperature Range	T _A	0 to 70	°C
Storage Temperature Range	T _{stg}	-65 to 175	°C

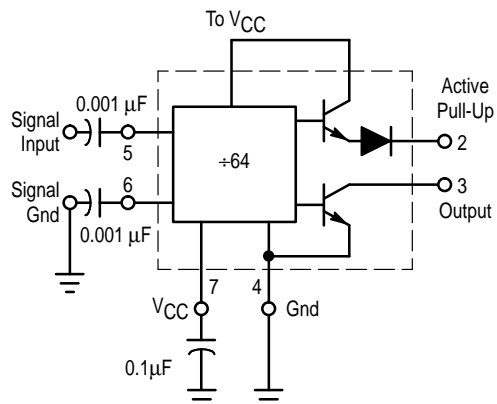
NOTE: ESD data available upon request.

ELECTRICAL CHARACTERISTICS (V_{CC} = 3.2 to 5.5V; T_A = 0 to +70°C)

Characteristic	Symbol	Min	Typ	Max	Unit
Toggle Frequency (Sine Wave Input)	f _{max} f _{min}	225 –	– –	– 35	MHz
Supply Current at 5.5 V	I _{CC}	–	3.50 ³	4.8	mA
Output Voltage HIGH ¹ (V _{CC} = 3.2 V) ²	V _{OH}	1.2	1.4	–	V
Output Voltage HIGH ¹ (V _{CC} = 5.0 V) ²	V _{OH}	2.5	–	–	V
Output Voltage LOW ¹ (I _{sink} = 2.0 mA)	V _{OL}	–	–	0.5	V
Input Voltage Sensitivity 35 MHz 50–225 MHz	V _{in}	400 200	– –	800 800	mV _{PP}

- NOTES:** 1. Pin 2 connected to Pin 3
2. I_{source} = 50 μA
3. V_{CC} = 4.5 V

Figure 1. Prescaler Block Diagram



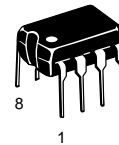
MC12023

MECL PLL COMPONENTS ÷64 PRESCALER

SEMICONDUCTOR TECHNICAL DATA

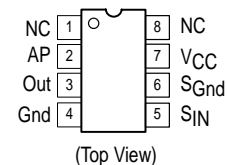


D SUFFIX
PLASTIC PACKAGE
CASE 751
(SO-8)



P SUFFIX
PLASTIC PACKAGE
CASE 626

PIN CONNECTIONS

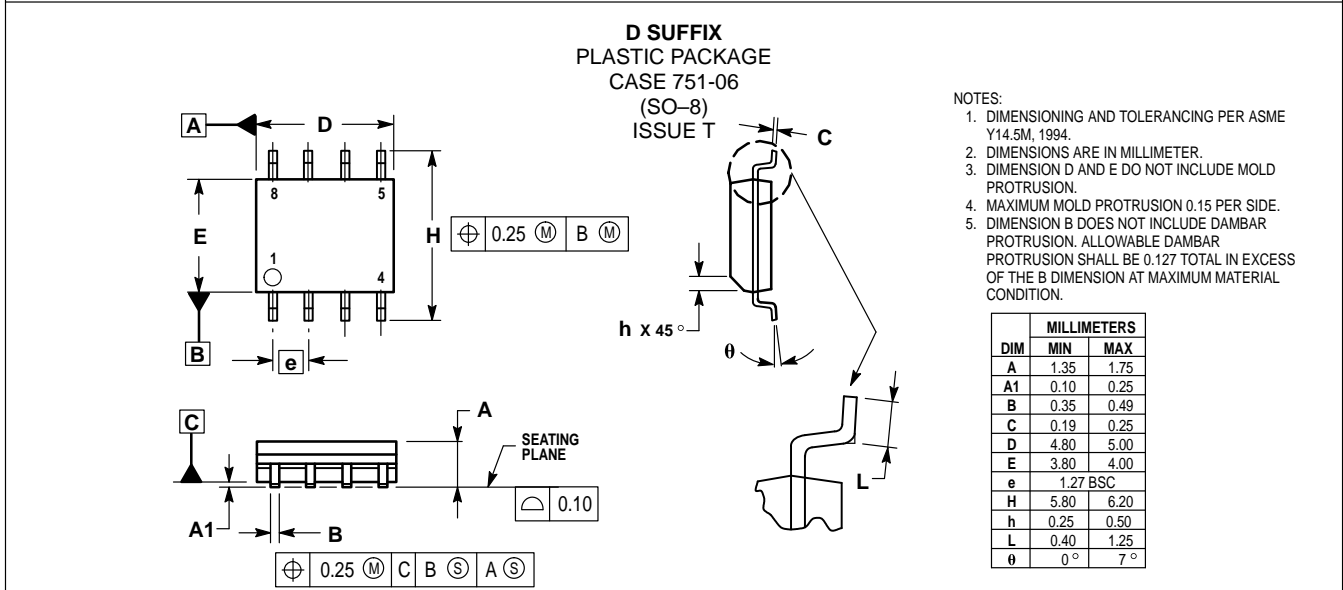
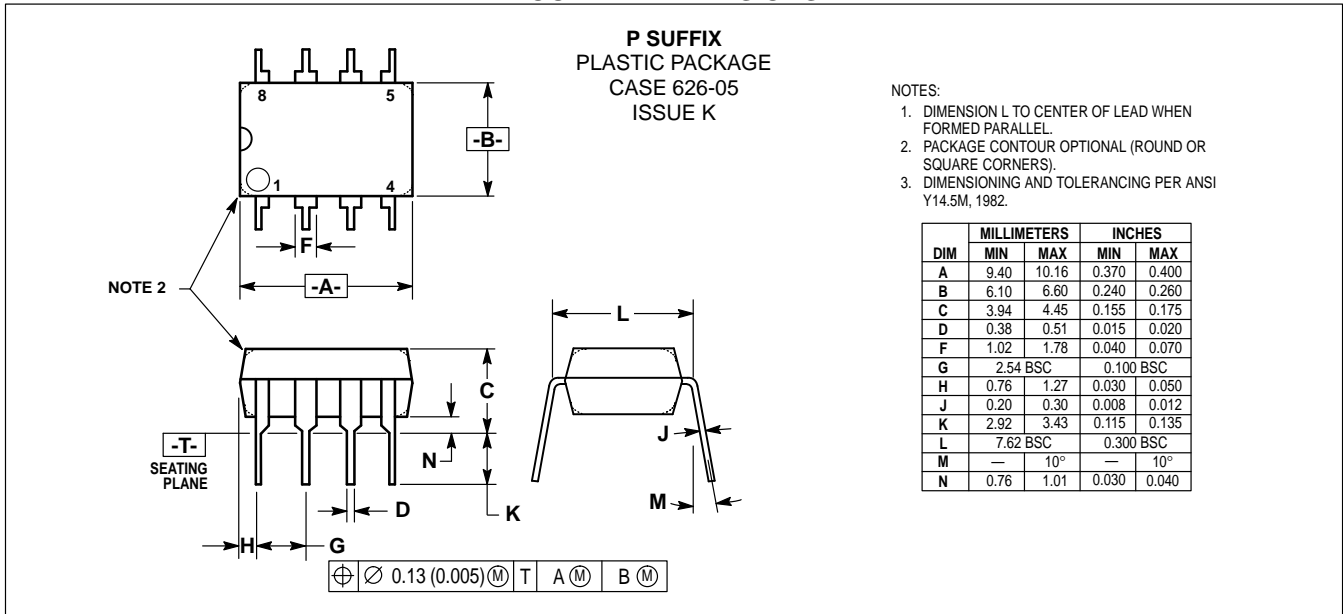


ORDERING INFORMATION

Device	Operating Temperature Range	Package
MC12023D	T _A = 0° to 70°C	SO-8
MC12023P		Plastic

MC12023

OUTLINE DIMENSIONS



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