

MC12026A

1.1 GHz Dual Modulus Prescaler

The MC12026A is a high frequency, low voltage dual modulus prescaler used in phase-locked loop (PLL) applications.

The MC12026A can be used with CMOS synthesizers requiring positive edges to trigger internal counters in a PLL to provide tuning signals up to 1.1 GHz in programmable frequency steps.

A Divide Ratio Control (SW) permits selection of an 8/9 or 16/17 divide ratio as desired.

The Modulus Control (MC) selects the proper divide number after SW has been biased to select the desired divide ratio.

- 1.1 GHz Toggle Frequency
- Supply Voltage 4.5 to 5.5 V
- Low Power 4.0 mA Typical
- Operating Temperature Range of -40 to 85°C
- The MC12026 is Pin Compatible with the MC12022
- Short Setup Time (t_{set}) 6.0 ns Typical @ 1.1 GHz
- Modulus Control Input Level is Compatible with Standard CMOS and TTL
- These Devices are Pb-Free, Halogen Free and are RoHS Compliant

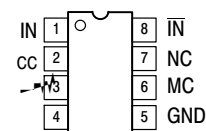
H	H	8
H	L	9
L	H	16
L	L	17

1. SW: H = V_{CC} , L = Open. A logic L can also be applied by grounding this pin, but this is not recommended due to increased power consumption.
2. MC: H = 2.0 V to V_{CC} , L = GND to 0.8 V.

Power Supply Voltage, Pin 2	V_{CC}	-0.5 to 7.0	Vdc
Operating Temperature Range	T_{A}	-40 to 85	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-65 to 150	$^{\circ}\text{C}$
Modulus Control Input, Pin 6	MC	-0.5 to 6.5	Vdc
Maximum Output Current, Pin 4	I_{O}	10.0	mA

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

NOTE: ESD data available upon request.

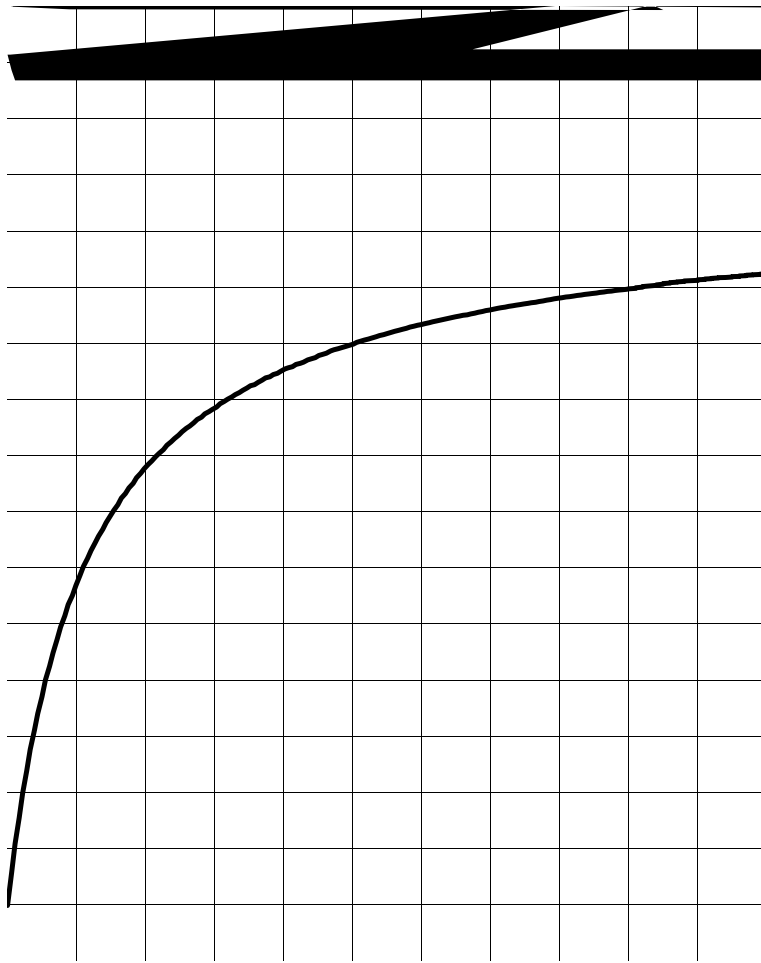


(Top View)

($V_{CC} = 4.5$ to 5.5 ; $T_A = -40$ to 85°)







-X-

- - - -

⊕ 0. (0.010) ○ ○

-Y-

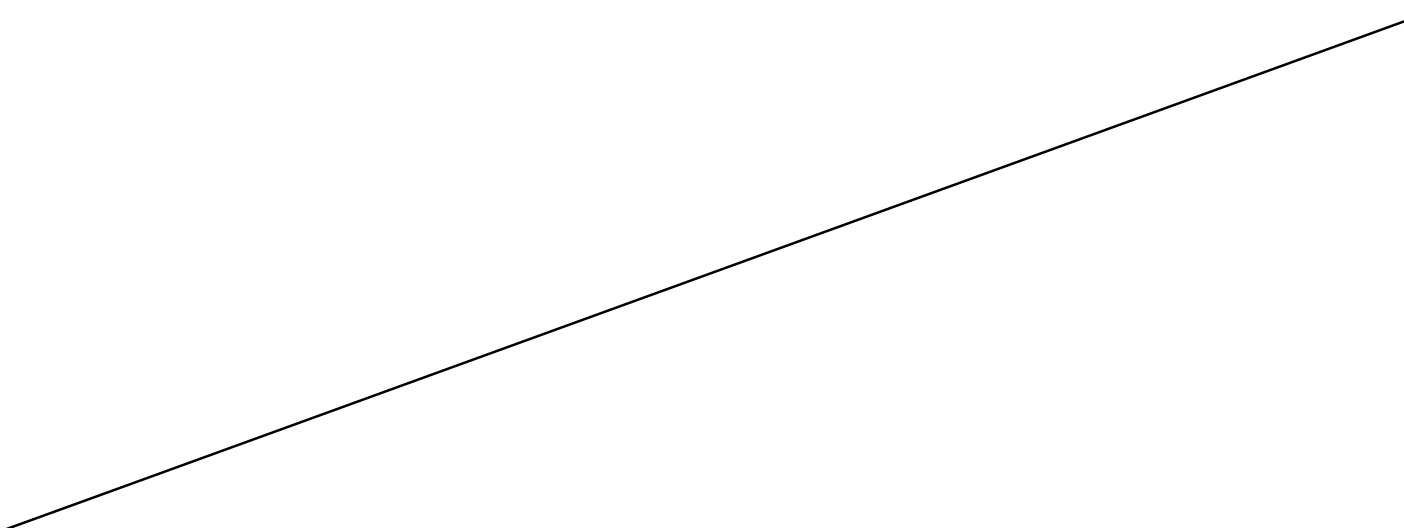
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G

-Z-

C	1.35	1.75	0.053	0.069
D	0.33	0.51	0.013	0.020
G	1.27 BSC		0.050 BSC	
H	0.10	0.25	0.004	0.010
J	0.19	0.25	0.007	0.010
K	0.40	1.27	0.016	0.050
M	0	8	0	8
N	0.25	0.50	0.010	0.020
S	5.80	6.20	0.228	0.244

0. (0.010) ○ 101100 1.000 0.1 1011. 100 0001.1 1001 1 0()01.1 100111.1 100000 5.80 6.20 0.228 0.244 1.0 0 1000 0.)



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