

MB501UL

Low Power and Low Voltage Dual Modulus Prescaler

The Fujitsu MB501UL is an ultimate low-power version of MB501LV, a dual modulus prescaler. It is used in phase locked loop (PLL) frequency synthesizers to divide the input frequency by the modulus of 64/65 or 128/129, respectively. The use of Fujitsu's Advanced Process Technology provides the benefits of extremely small stray capacitance on the chip. As a result, the high-speed operation of the MB501UL is achieved with a low power supply current of 1.9 mA (typical), or about 1/6 the value of the MB501LV (12 mA) and less than 1/2 the value of the MB501SL (5 mA).

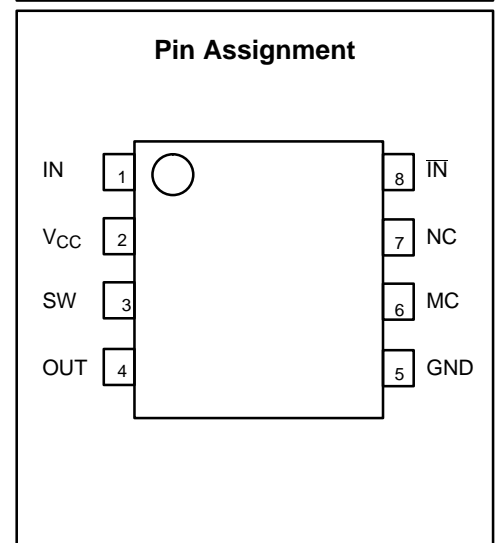
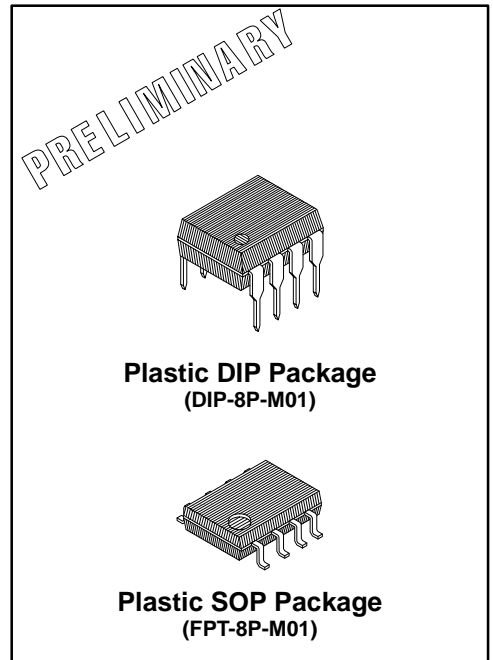
- High frequency operation: $f_{max} = 1.1$ GHz max.
- Pulse swallow function: 64/65, 128/129
- Low power supply current: 1.9 mA typical
- Stable output amplitude: 1.1 V_{PP} typical
- Wide operating temperature: -40 to +85 °C
- Built-in terminal resistor
- Complete PLL synthesizer circuit with Fujitsu MB87001A, PLL synthesizer IC
- Package and ordering information:
 - 8-pin plastic DIP, order as MB501ULP
 - 8-pin plastic SOP, order as MB501ULPF

ABSOLUTE MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Supply Voltage	V _{CC}	+0.5 to +4.0	V
Input Voltage	V _{IN}	-0.5 to V _{CC}	V
Output Current	I _O	10	mA
Storage Temperature	T _{STG}	-55 to +125	°C

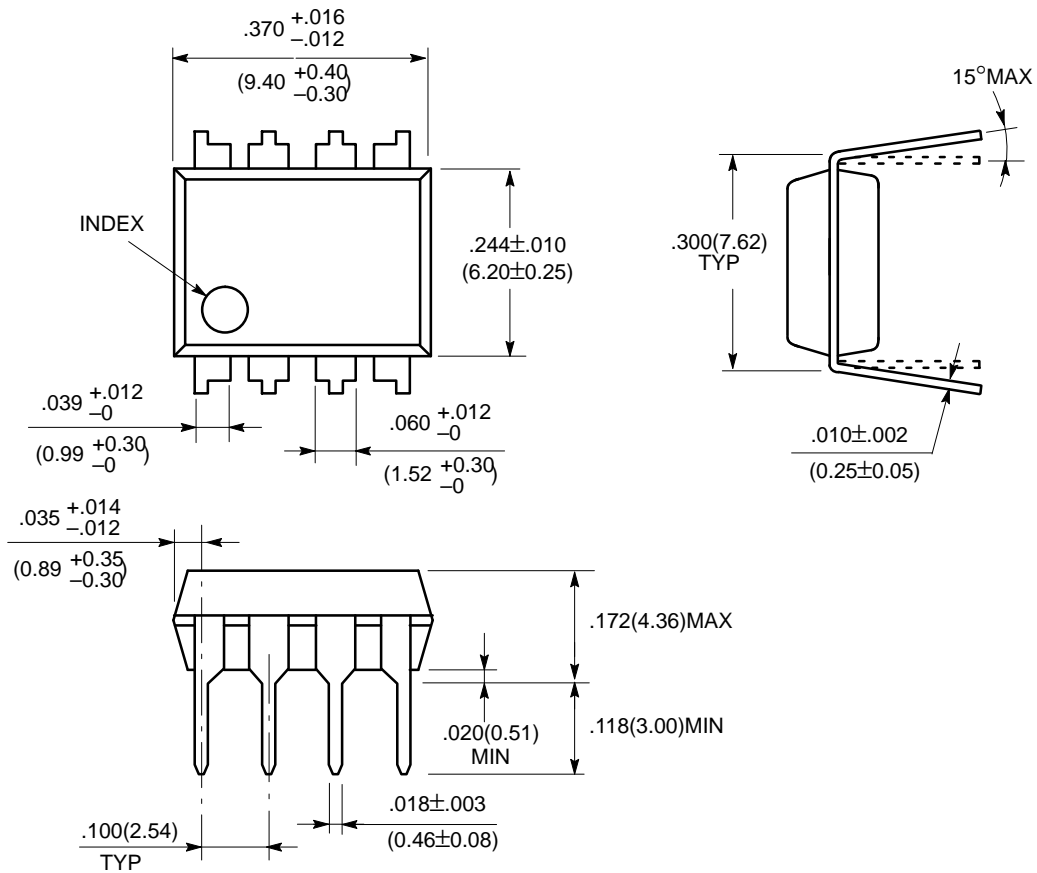
— NOTICE —

Permanent device damage may occur if absolute maximum ratings are exceeded. Functional operation should be restricted to the conditions as detailed in the operation sections of this data sheet. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.



This device contains circuitry to protect the inputs against damage due to high static voltages or electric fields. However, it is advised that normal precautions be taken to avoid application of any voltage higher than maximum rated voltages to this high impedance circuit.

PACKAGE DIMENSIONS

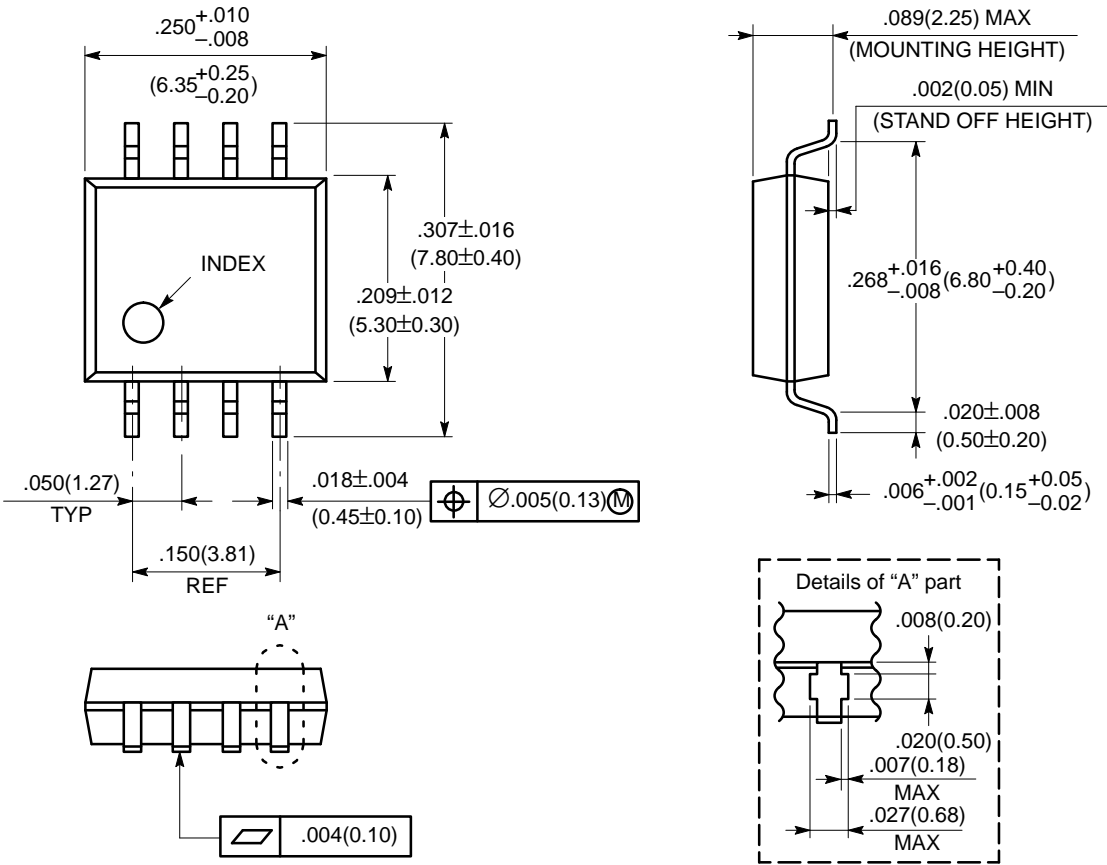
8-LEAD PLASTIC DUAL IN-LINE PACKAGE
(CASE No.: DIP-8P-M01)

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Dimensions in
inches (millimeters)

PACKAGE DIMENSIONS

8-LEAD PLASTIC FLAT PACKAGE
(CASE No.: FPT-8P-M01)



FUJITSU LIMITED

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