# ❑ MN101C07A

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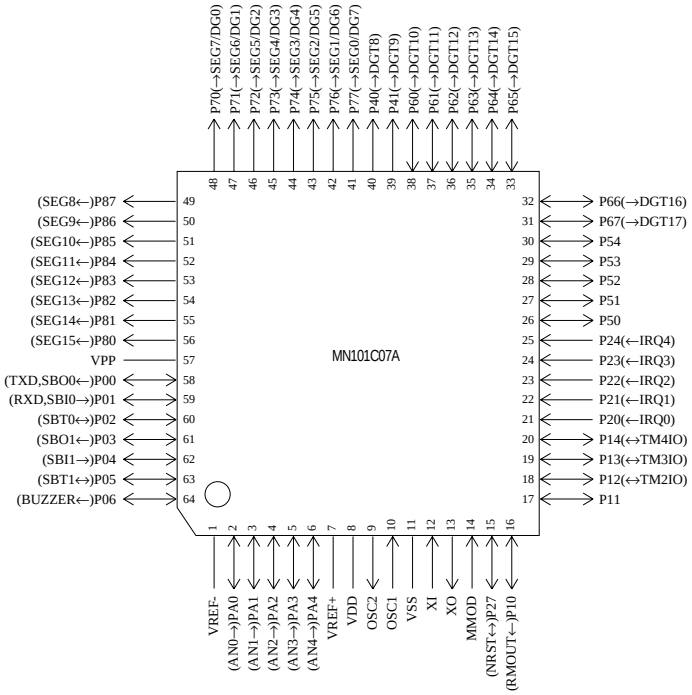
|---|---|---|---|
| **Type** | | | MN101C07A |
| **ROM (×8-bit)** | | | 32 K |
| **RAM (×8-bit)** | | | 1 K |
| **Package** | | | LQFP064-P-1414 *Lead-free |
| **Minimum Instruction Execution Time** | | | 0.25 µs (at 2.7 V to 5.5 V, 8 MHz)<br>125 µs (at 2.7 V to 5.5 V, 32 kHz) |
| **Interrupts** | | | • RESET • Watchdog • External 0 • External 1 • External 2 • External 3 • External 4 • Timer 2<br>• Timer 3 • Timer 4 • Timer 5 • Time base • Serial 0 • Serial 1 • Automatic transfer finish<br>• A/D conversion finish • Key scan |
| **Timer Counter** | | | Timer counter 2 : 8-bit × 1 (square-wave/8-bit PWM output, event count, synchronous output event)<br>Clock source ····· 1/1, 1/4 of system clock frequency; 1/1 of XI oscillation clock frequency; external clock input<br>Interrupt source ····· coincidence with compare register 2<br><br>Timer counter 3 : 8-bit × 1<br>(square-wave output, event count, generation of remote control carrier, serial 0 baud rate timer)<br>Clock source ····· 1/4, 1/16 of system clock frequency; 1/1 of OSC oscillation clock frequency; external clock input<br>Interrupt source ····· coincidence with compare register 3<br><br>Timer counter 2, 3 can be cascade-connected.<br><br>Timer counter 4 : 16-bit × 1<br>(square-wave/16-bit PWM output, event count, synchronous output event, input capture)<br>Clock source ····· 1/4, 1/16 of system clock frequency; 1/1 of OSC oscillation clock frequency; external clock input<br>Interrupt source ····· coincidence with compare register 4<br><br>Time base timer (one-minute count setting, independently operable 8-bit timer counter 5)<br>Clock source ····· 1/4 of system clock frequency; 1/1, 1/8192 of OSC oscillation clock frequency; 1/1, 1/8192 of XI oscillation clock frequency<br>Interrupt source ····· coincidence with compare register 5; 1/8192 prescaler overflow<br><br>Watchdog timer<br>Interrupt source ····· 1/2097152 of system clock frequency |
| **Serial Interface** | | | Serial 0 : synchronous type/simple UART (half-duplex) × 1<br>Clock source ····· 1/2, 1/4, 1/16 of system clock frequency; 1/2 of timer counter 3 frequency<br><br>Serial 1 : synchronous type × 1<br>Clock source ····· 1/2, 1/8, 1/64 of system clock frequency; 1/2 of timer counter 3 frequency |
| **I/O Pins** | **I/O** | 27 | • Common use : 21 • Specified pull-up resistor avaiable • Input/output selectable (bit unit) |
| | **High Voltage** | 26 | • Output: 18 • I/O: 8 • P-ch open drain (breakdown voltage –30 V): FL drive: 26<br>• Specified pull-down resistor mask option: 8 |
| **A/D Inputs** | | | 8-bit × 5-ch. (with S/H) |
| **FL** | | | (8 to 16) segments × (18 to 10) digits |
| **Special Ports** | | | Buzzer output, remote control carrier signal output |

## Electrical Characteristics

### Supply current

| Parameter | Symbol | Condition | Limit | | | Unit |
|---|---|---|---|---|---|---|
| | | | min | typ | max | |
| Operating supply current | IDD1 | fosc = 8 MHz, VDD = 5 V | | | 25 | mA |
| | IDD2 | fx = 32 kHz, VDD = 3 V | | | 120 | µA |
| Supply current at HALT | IDD3 | fx = 32 kHz, VDD = 3 V | | | 10 | µA |
| Supply current at STOP | IDD4 | VDD = 3 V | | | 10 | µA |

## Pin Assignment




LQFP064-P-1414 *Lead-free

## Support Tool

| | | |
|---|---|---|
| **In-circuit Emulator** | PX-ICE101C / D + PX-PRB101C07-LQFP064-P-1414 | |
| **EPROM Built-in Type** | Type | MN101CP07D |
| | ROM (× 8-bit) | 64 K |
| | RAM (× 8-bit) | 2 K |
| | Minimum instruction execution time | 0.25 µs (at 2.7 V to 5.5 V, 8 MHz) |
| | | 125 µs (at 2.7 V to 5.5 V, 32 kHz) |
| | Package | LQFP064-P-1414 *Lead-free |

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