

□ MN101C94 Series

Type	MN101C94A	MN101CF94D
Internal ROM type	Mask ROM	FLASH
ROM (byte)	32K	64K
RAM (byte)	1K	2K
Package (Lead-free)	QFP044-P-1010F	
Minimum Instruction Execution Time	0.10 μ s (at 4.5 V to 5.5 V, 20 MHz) 0.238 μ s (at 2.7 V to 5.5 V, 8.39 MHz) 0.477 μ s (at 2.0 V to 5.5 V, 4.19 MHz)* *: The lower limit for operation guarantee for flash memory built-in type is 2.5 V.	

■ Interrupts

RESET. Watchdog. External 0 to 2. Timer 0 to 5. Time base. Serial 0. A/D conversion finish

■ Timer Counter

8-bit timer \times 4

- Timer 0Square-wave/8-bit PWM output. Event count. Remote control carrier output
- Timer 1Square-wave output. Event count. Synchronous output event
- Timer 2Synchronous output event
- Timer 3Square-wave output. Event count. Remote control carrier output. Serial 0 baud rate timer
- Timer 0, 1 can be cascade-connected
- Timer 2, 3 can be cascade-connected

16-bit timer \times 1

- Timer 4Square-wave/16-bit PWM output. Event count. Synchronous output event. Input capture
- Time base timer: One-minute count setting. Independently operable 8-bit timer 5
- Watchdog timer \times 1

■ Serial interface

Synchronous type/Simple UART (half-duplex) \times 1: Serial 0

■ I/O Pins

- I/O 26 : Common use. 17. Specified pull-up resistor available
 Input/output selectable (bit unit): 26
- Input 11 : Common use. Specified pull-up resistor available

■ A/D converter

10-bit \times 8 channels (with S/H)

■ Special Ports

Buzzer output. Remote control carrier output. High-current drive port

■ Electrical Characteristics (Supply current)

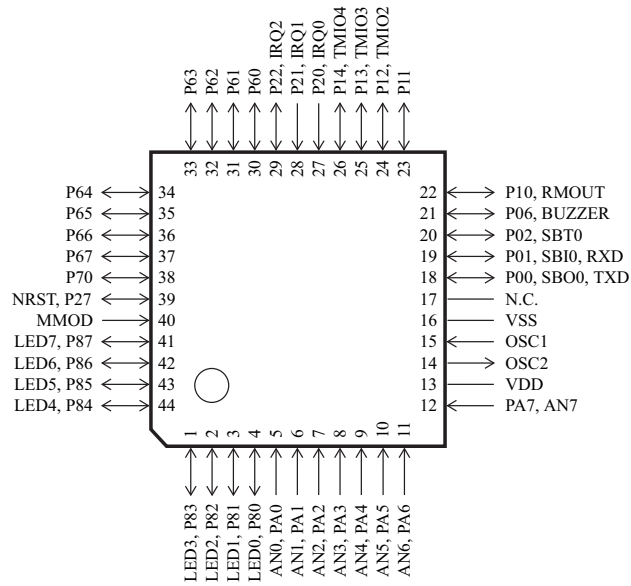
Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating supply current	IDD1	$f_{osc} = 20 \text{ MHz}$. $V_{DD} = 5 \text{ V}$		15	40	mA
	IDD2	$f_{osc} = 8.39 \text{ MHz}$. $V_{DD} = 5 \text{ V}$		6	18	mA
Supply current at HALT	IDD3	$f_{osc} = 8.39 \text{ MHz}$. $V_{DD} = 5 \text{ V}$. $T_a = 25 \text{ }^\circ\text{C}$		1.2	3	mA
Supply current at STOP	IDD4	$V_{DD} = 5 \text{ V}$. $T_a = 25 \text{ }^\circ\text{C}$			2	μA
	IDD5	$V_{DD} = 5 \text{ V}$. $T_a = -40 \text{ }^\circ\text{C}$ to $+85 \text{ }^\circ\text{C}$			20(50)	μA

Note) (): Flash memory built-in type

■ Development tools

- In-circuit Emulator
PX-ICE101C/D + PX-PRB101C94-QFP044-P-1010

■ Pin Assignment
QFP044-P-1010F



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