## ■ MN101C45 Series

Туре	MN101C457	MN101CP427			
Internal ROM type	Mask ROM	EPROM			
ROM (byte)	16K				
RAM (byte)	0.5K				
Package (Lead-free)	QFP044-P-1010F				
Minimum Instruction Execution Time	0.10 μs (at 4.5 V to 5.5 V, 20 MHz) 0.238 μs (at 2.7 V to 5.5 V, 8.39 MHz) 0.477 μs (at 2.0 V to 5.5 V, 4.19 MHz)	0.10 μs (at 4.5 V to 5.5 V, 20 MHz) 0.238 μs (at 2.7 V to 5.5 V, 8.39 MHz)			

## ■ Interrupts

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

#### ■ Timer Counter

8-bit timer  $\times$  2

Timer 2 ......Square-wave/8-bit PWM output. Event count. Synchronous output event

Timer 3 ......Square-wave output. Event count. Remote control carrier output. Serial 0 baud rate timer

Timer 2, 3 can be cascade-connected

16-bit timer  $\times$  1

Timer 4 ......Square-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 × 1

#### ■ Serial interface

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

## ■ I/O Pins

I/O 26: Common use: 16. 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 Charactreistics (Supply current)

Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	Offic
Operating supply current	IDD1	fosc = 20  MHz. VDD = 5  V		15	40	mA
	IDD2	fosc = 8.39 MHz. VDD = 5 V		6	18	mA
Supply current at STOP	IDD3	$VDD = 5 \text{ V. } Ta = 25 ^{\circ}\text{C}$			2	μA
	IDD4	$VDD = 5 \text{ V. } Ta = -40 ^{\circ}\text{C} \text{ to } +85 ^{\circ}\text{C}$			20	μА

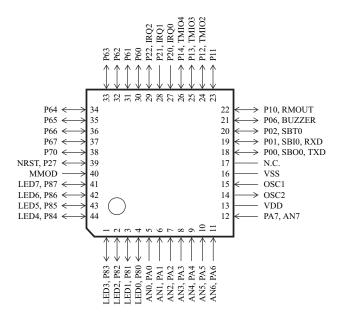
## ■ Development tools

In-circuit Emulator

PX-ICE101C/D + PX-PRB101C45-QFP044-P-1010

Panasonic MAD00003KEM

■ Pin Assignment QFP044-P-1010F



MAD00003KEM Panasonic

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