

# □ MN101C425 / 427

<b>Type</b>		<b>MN101C425 (under planning) / 427</b>
<b>ROM (×8-Bit)</b>		8 K / 16 K
<b>RAM (×8-Bit)</b>		256 / 512
<b>Minimum Instruction Execution Time</b>		<b>0.10 μs (at 4.5 V to 5.5 V, 20 MHz)</b> <b>0.25 μs (at 2.7 V to 5.5 V, 8 MHz)</b> <b>0.5 μs (at 2.0 V to 5.5 V, 4 MHz)*</b> <b>125 μs (at 2.0 V to 5.5 V, 32 kHz)*</b>
* The lower limit for operation guarantee for EPROM built-in version is 2.7 V.		
<b>Interrupts</b>		• RESET • Watchdog • External 0 • External 1 • External 2 • External 3 (Only 48-pin package) • Timer 2 • Timer 3 • Timer 4 • Timer 5 • Time Base • Serial 0 • A/D Conversion finish
<b>Timer Counter</b>		<p><b>Timer Counter 2 : 8-Bit × 1</b> (Square-Wave/8-Bit PWM Output, Event Count, Synchronous Output Event)</p> Clock Source . . . 1/1, 1/4 of System Clock, 1/1 of XI Oscillation Clock (Only 48-pin package), External Clock Input Interrupt Source . . . Coincidence with Compare Register 2
		<p><b>Timer Counter 3 : 8-Bit × 1</b> (Square-Wave Output, Event Count, Generation of Remote Control Carrier, Serial 0 Baud Rate Timer)</p> Clock Source . . . 1/4, 1/16 of System Clock, 1/1 of OSC Oscillation Clock, External Clock Input Interrupt Source . . . Coincidence with Compare Register 3
<b>Timer Counter 2, 3 can be cascade-connected.</b>		
		<p><b>Timer Counter 4 : 16-Bit × 1</b> (Square-Wave/16-Bit PWM Output, Event Count, Synchronous Output Event, Input Capture)</p> Clock Source . . . 1/4, 1/16 of System Clock, 1/1 of OSC Oscillation Clock, External Clock Input Interrupt Source . . . Coincidence with Compare Register 4
		<p><b>Time Base Timer</b> (One-Minute Count Setting, Five independently operable 8-Bit Timer Counter)</p> Clock Source . . . 1/4 of System Clock, 1/1, 1/8192 of OSC Oscillation Clock, 1/1, 1/8192 of XI Oscillation Clock (Only 48-pin package) Interrupt Source . . . Coincidence with Compare Register 5, 1/8192 Prescaler Overflow
		<p><b>Watchdog Timer</b></p> Interrupt Source . . . 1/65536, 1/262144, 1/1048576 of System Clock (ROM Option)
<b>Serial Interface</b>		<p><b>Serial 0 : 8-Bit × 1</b> (Synchronous Type/Simple UART[Half-Duplex])</p> Clock Source . . . 1/2, 1/4, 1/16 of System Clock . . . 1/2 of Timer Counter 3
<b>I/O Pins</b>	<b>I/O</b>	<b>27</b> • Common use 7 • Specified pull-up Resistor available • Input/Output selectable (bit unit) 26 (for 44-pin), 25 (for 42-pin)
	<b>Input</b>	<b>12</b> • Common use • Specified pull-up Resistor available

<b>A/D Inputs</b>	10-Bit × 8ch (with S/H)
<b>Special Ports</b>	Buzzer Output, Remote Control Carrier Signal Output, High-Current Drive Port
<b>Package</b>	SDIP042-P-0600, QFP044-P-1010, TQFP048-P-0707B (under planning)
<b>Electrical Characteristics</b>	

**Supply Current**

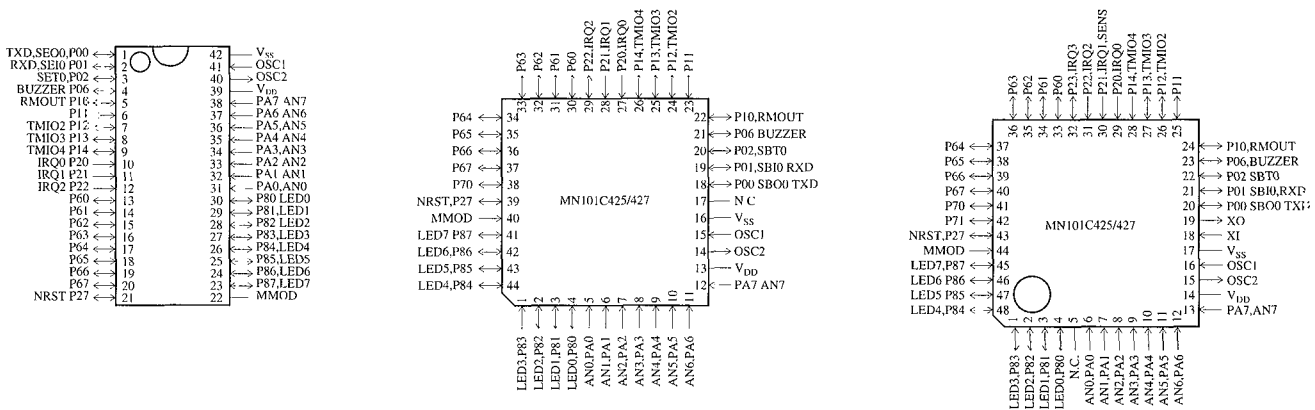
Parameter	Symbol	Condition	Limit			Unit
			min	typ	max	
Operating Supply Current	IDD1	fosc = 20 MHz, VDD = 5 V			40	mA
	IDD2	fosc = 8.39 MHz, VDD = 5 V			18	mA
	IDD3	fx = 32 kHz, VDD = 3 V			100	μA
Supply Current at HALT1	IDD4	fx = 32 kHz, VDD = 3 V, Ta = 25 °C			8	μA
	IDD5	fx = 32 kHz, VDD = 3 V, Ta = -40 °C to +85 °C			18	μA
Supply Current at STOP	IDD6	VDD = 5 V, Ta = 25 °C			2	μA
		VDD = 5 V, Ta = -40 °C to +85 °C			20	μA

**Support Tool**

<b>In-Circuit Emulator</b>	PX-ICE101C / D + PX-PRB101C42-44QF10-C / D PX-ICE101C / D + PX-PRB101C42-42SD-C / D PX-ICE101C / D + PX-PRB101C42-48QF7-C / D
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<b>EPROM built-in Type</b>	Type MN101CP427DP [ES (Engineering Sample) available] MN101CP427HT (under planning)
<b>ROM (× 8-Bit)</b>	16 K
<b>RAM (× 8-Bit)</b>	512
<b>Minimum Instruction Execution Time</b>	0.10 μs (at 4.5 V to 5.5 V, 20 MHz) 0.25 μs (at 2.7 V to 5.5 V, 8 MHz)
<b>Package</b>	SDIP042-P-0600, QFP044-P-1010, TQFP048-P-0707B (under planning)

**Pin Assignment**



SDIP042-P-0600

QFP044-P-1010

TQFP048-P-0707B (under planning)