# **□ MN152810**

Туре			MN152810				
ROM (×8-Bit)			8 K				
RAM (×4-Bit)			320				
Number of Instructions			115				
Minimum	Instruction Execution Tir	ne	2.0 μs at 1/12 frequency dividing (at 4.5 V to 5.5 V, 6 MHz)				
Interrupts			RESET • SIRQ • Remote Control Input • Timer • Serial (Only when choosing Mask Option)				
Timer Counter			Timer Counter : 8-Bit × 1  Clock Source 1/2, 1/8, 1/32, 1/128 of System Clock Interrupt Source Overflow of Timer Counter				
Serial In	erface		Serial : 8-Bit × 1 (Synchronous Type)  Clock Source System Clock, SBT Pin Input				
I/O Pins	1/0	6	Common use: 2				
	Input	4	Common use 1 • Specified pull-up Resistor available 4 ( Mask Option)     Output selectable 3 (Software Programmable)				
	High Voltage Output	5	Nch Open-Drain (Breakdown Voltage 12 V) 5 Push-Pull Output selectable 4 (Mask Option)				
	Output	5					
A/D Input	s		5-Bit × 4ch (Conversion by Software)				
D/A Input	s		6-Bit × 5ch				
PWM			7-Bit $\times$ 4ch (Repetition Cycle 256 $\mu$ s, at 6 MHz), 14-Bit $\times$ 1ch (Repetition Cycle 32 8 ms, at 6 MHz)				
Special Ports			Tri-State Output (PTO), Remote Control Reception				
CRTC			5 × 7 dots, 16 characters, 6 lines, 7 colors, 120 patterns, Rounding function, Framing function				
Notes			Remote Control Data Detection Circuit built-in, For Voltage Synthesizer, Stand-By				
■ Package	Mainte	No.	SDIP052-P-0600				

### ■ Electrical Characteristics

#### **Supply Current**

Parameter	Symbol	Condition	min	Limit typ	max	Unit
One water or Cumply Coursest	IDD1	fosc = 6 MHz, VDD = VDDC = AVDD = 5 V VSSC = 2 V, Ta = 25 °C		28	50	mA
Operating Supply Current	IDD2	fosc = 6 MHz, VDD = VDDC = AVDD = 5 V VSSC = 2 V, Ta = 25 °C		4.0	8 0	mA
Supply Current at STOP	IDD3	VDD = VDDC = AVDD = 3 V, VSSC = 0 V fosc = 0 Hz, Ta = 25 °C			20	μΑ

 $(Ta = 25 \, ^{\circ}C, \, 80 \, ^{\circ}C, \, VDD = 5.0 \, V, \, VSS = 0 \, V)$ 

#### A/D, D/A Converter Characteristics

Parameter	Symbol	Condition	min	Limit typ	max	Unit
A/D Conversion Absolute Error		VDD = 5 V, VSS = 0 V			±1	LSB
D/A Conversion Absolute Error		VDD = 5 V, VSS = 0 V			±1/2	LSB
Analog Input Voltage		1100	VSS		VDD	V

(Ta = 25 °C, 80 °C, VDD = 5.0 V, VSS = 0 V, VSSC = 0 V, VDDC = AVDD = 5 V)

### **Support Tool**

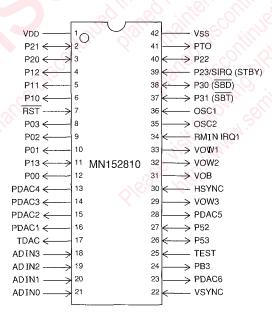
In-Circuit Emulator

PX-ICE1500 + PX-PRB152810

■ Piggyback

Use EP152810 as piggy in SDIP052-P-0600 package

## Pin Assignment



SDIP052-P-0600

NC Nothing connected with pin

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