



MCP23017/MCP23S17

16-Bit I/O Expander with Serial Interface

Features

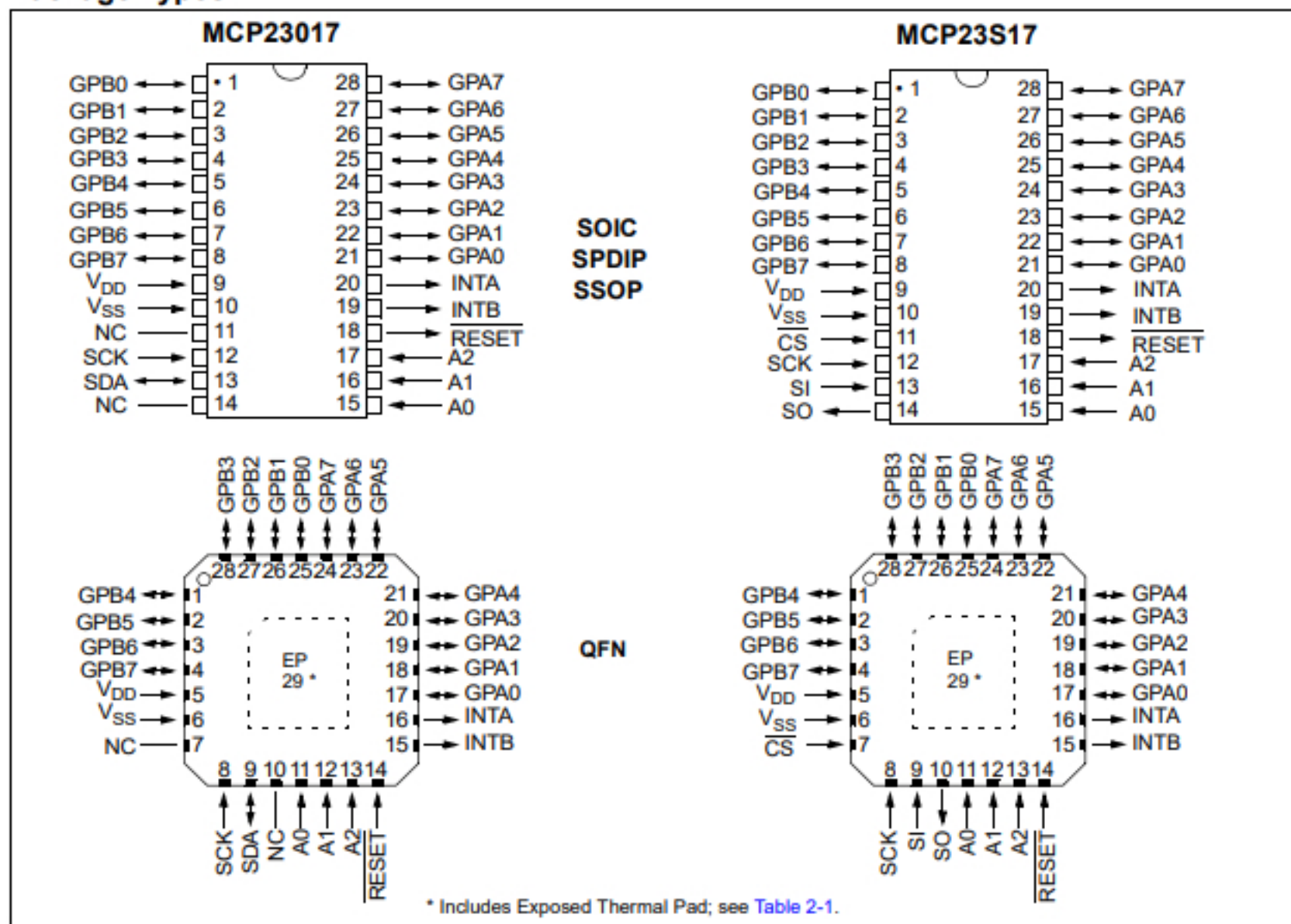
- 16-Bit Remote Bidirectional I/O Port:
 - I/O pins default to input
- High-Speed I²C Interface (**MCP23017**):
 - 100 kHz
 - 400 kHz
 - 1.7 MHz
- High-Speed SPI Interface (**MCP23S17**):
 - 10 MHz (maximum)
- Three Hardware Address Pins to Allow Up to Eight Devices On the Bus
- Configurable Interrupt Output Pins:
 - Configurable as active-high, active-low or open-drain
- INTA and INTB Can Be Configured to Operate Independently or Together

- Configurable Interrupt Source:
 - Interrupt-on-change from configured register defaults or pin changes
- Polarity Inversion Register to Configure the Polarity of the Input Port Data
- External Reset Input
- Low Standby Current: 1 μ A (max.)
- Operating Voltage:
 - 1.8V to 5.5V @ -40°C to +85°C
 - 2.7V to 5.5V @ -40°C to +85°C
 - 4.5V to 5.5V @ -40°C to +125°C

Packages

- 28-pin QFN, 6 x 6 mm Body
- 28-pin SOIC, Wide, 7.50 mm Body
- 28-pin SPDIP, 300 mil Body
- 28-pin SSOP, 5.30 mm Body

Package Types



MCP23017/MCP23S17

PRODUCT IDENTIFICATION SYSTEM

To order or obtain information, e.g., on pricing or delivery, refer to the factory or the listed sales office.

<u>PART NO.</u>	-	X	/XX	X ⁽¹⁾	
Device		Temperature Range	Package	Tape and Reel Option	
Device:		MCP23017:	16-Bit I/O Expander with I ² C Interface		
		MCP23S17:	16-Bit I/O Expander with SPI Interface		
Temperature Range:		E	= -40°C to +125°C (Extended)		
Package:		ML	= Plastic Quad Flat, No Lead Package, 6x6 mm Body, QFN, 28-lead		
		SO	= Plastic Small Outline, Wide, 7.50 mm Body, SOIC, 28-Lead		
		SP	= Skinny Plastic Dual In-Line, 300 mil Body, SPDIP, 28-Lead		
		SS	= Plastic Shrink Small Outline, 5.30 mm Body, SSOP, 28-Lead		
Tape and Reel Option:		T	= Tape and Reel ⁽¹⁾		
		Blank	= Tube		

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Examples:	
a) MCP23017-E/ML:	Extended temperature, 28LD QFN package
b) MCP23017T-E/ML:	Extended temperature, 28LD QFN package, Tape and Reel
c) MCP23017-E/SP:	Extended temperature, 28LD SPDIP package
d) MCP23017-E/SO:	Extended temperature, 28LD SOIC package
e) MCP23017T-E/SO:	Extended temperature, 28LD SOIC package, Tape and Reel
f) MCP23017-E/SS:	Extended temperature, 28LD SSOP package
g) MCP23017T-E/SS:	Extended temperature, 28LD SSOP package, Tape and Reel
a) MCP23S17-E/ML:	Extended temperature, 28LD QFN package
b) MCP23S17T-E/ML:	Extended temperature, 28LD QFN package, Tape and Reel
c) MCP23S17-E/SP:	Extended temperature, 28LD SPDIP package
d) MCP23S17-E/SO:	Extended temperature, 28LD SOIC package
e) MCP23S17T-E/SO:	Extended temperature, 28LD SOIC package, Tape and Reel
f) MCP23S17-E/SS:	Extended temperature, 28LD SSOP package
g) MCP23S17T-E/SS:	Extended temperature, 28LD SSOP package, Tape and Reel

Note 1: Tape and Reel identifier only appears in the catalog part number description. This identifier is used for ordering purposes and is not printed on the device package. Check with your Microchip Sales Office for package availability with the Tape and Reel option.