EPSON 4-bit MCU S1C63567 SPEC

Model	S1C63567
Supply Voltage	2.2~ 5.5V
OSC1 oscillation circuit	32.768 kHz (Typ.) crystal or 60kHz (Typ.) CR oscillation circuit (*1)
OSC3 oscillation circuit	3.58 MHz (Typ.) ceramic or 1.8MHz (Typ.) CR oscillation circuit (*1)
Instruction set	Basic instruction: 46 types (411 instructions with all) Addressing mode: 8 types
Instruction execution time (during operation)	At 32.768kHz: 61μsec 122μsec 183μsec At 3.58MHz: 0.56μsec 1.12μsec 1.68μsec
ROM capacity	Code ROM: 16,384 words x 13 bits Data ROM: 2,048 words x 4 bits (=8K bits)
RAM capacity	Data memory: 5,120 words x 4 bits Display memory: 1,020 bits (240 words x 4bits + 60 x 1 bit)
I/O port	Input ports: 8 bits (pull-up resistors may be supplemented *1) Output ports: 12 bits (It is possible to switch the 8 bits to special output *2) I/O ports: 16 bits (It is possible to switch 2 bits to special output and the 4 bits to serial I/F input/output *2)
Serial interface	Built-in (8-bit clock synchronous or asynchronous system is selectable)
LCD driver	60 segments x 8, 16 or 17 commons (*2)
Time base counter	2 systems (Clock timer, stopwatch timer)
Programmable timer	Built-in, 2 inputs x 8 bits, with event counter function
Watchdog timer	Built-in
DTMF generator	Built-in
DP generator	Built-in
Sound generator	With envelope and 1-shot output functions
SVD circuit	12 values, programmable (2.20 to 3.30V)
External interrupt	Input port interrupt: 2 systems
Internal interrupt	Clock timer interrupt: 4 systems Stopwatch timer interrupt: 2 systems Programmable timer interrupt: 2 systems Serial interface interrupt: 3 systems Dialer interrupt: 1 system
Operating temperature range	-20 to 70°C

Current consumption (Typ.)	Low-speed operation (OSC1: crystal oscillation):
	   During HALT (32 kHz) 3.0V (LCD power OFF) 1.5 μA
	                            3.0V (LCD power ON) 4 μA
	   During operation (32kHz) 3.0V (LCD power ON) 10 μA
	High-speed operation (OSC3: ceramic oscillation):
	   During operation (3.58 MHz) 3.0V (LCD power ON) 600 μA

Package	QFP8-144pin (plastic) or chip

*1 Can be selected with mask option.   *2 Can be selected with software.