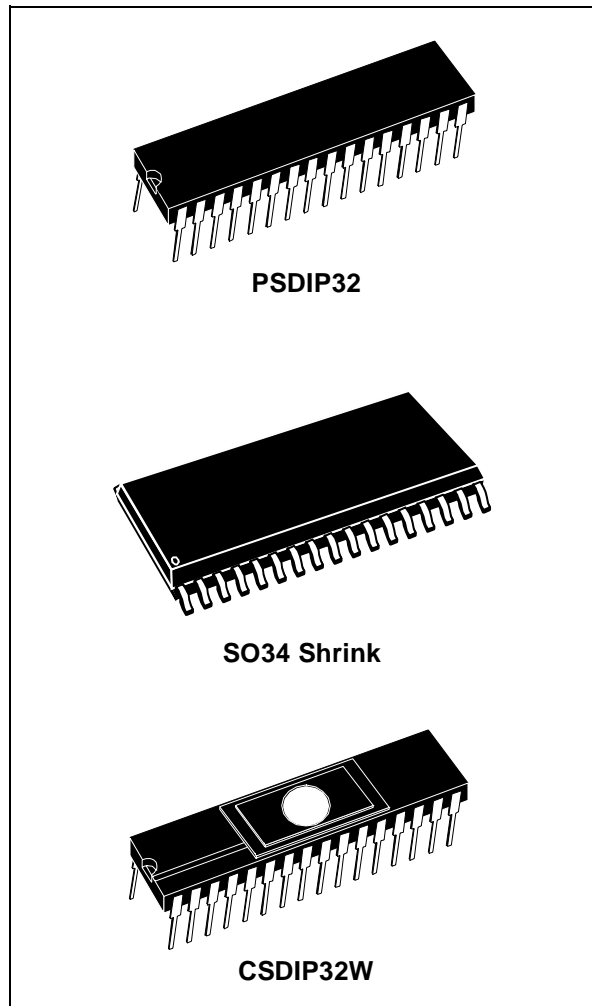




8/16-BIT MCU FOR 3-PHASE AC MOTOR CONTROL

DATA BRIEFING

- Register File based 8/16 bit Core Architecture with RUN, WFI, SLOW, HALT and STOP modes
- 0-25 MHz Operation (internal clock) @ 5V±10% voltage range
- -40°C to +85°C Operating Temperature Range
- Fully Programmable PLL Clock Generator, with Frequency Multiplication and low frequency, low cost external crystal (3-5 MHz)
- Minimum Instruction Cycle time: 160 ns - (@ 25 MHz internal clock frequency)
- Internal Memory:
 - EPROM/OTP/ROM 16K bytes
 - RAM 512 bytes
- 224 general purpose registers available as RAM, accumulators or index pointers (register file)
- 32-pin Dual Inline and 34-pin Small Outline Packages
- 15 programmable I/O pins with Schmitt Trigger input, including 4 high sink outputs (20mA @ V_{OL}=3V)
- 4 Wake-up Interrupts (one usable as Non-Maskable Interrupt) for emergency event management
- 3-phase Induction Motor Controller (IMC) Peripheral with 3 pairs of PWM outputs and asynchronous emergency stop
- Serial Peripheral Interface (SPI) with Master/Slave Mode capability
- 16-bit Timer with 8-bit Prescaler usable as a Watchdog Timer
- 16-bit Standard Timer with 8-bit Prescaler
- 16-bit Extended Function Timer with Prescaler, 2 Input Captures and 2 Output Compares
- 8-bit Analog to Digital Converter allowing up to 6 input channels with autoscan and watchdog capability
- Low Voltage Detector Reset
- Rich Instruction Set with 14 Addressing Modes
- Division-by-Zero trap generation
- Versatile Development Tools, including Assembler, Linker, C-compiler, Archiver, Source Level Debugger and Hardware Emulators with Real-Time Operating System available from Third Parties



DEVICE SUMMARY

| DEVICE | Program Memory (Bytes) | RAM (Bytes) | PACKAGE |
|----------|------------------------|-------------|------------------|
| ST92141 | 16K ROM | 512 | PSDIP32/ SO34 |
| ST92E141 | 16K EPROM | 512 | CSDIP32W |
| ST92T141 | 16K OTP | 512 | PSDIP32/ SO34 |

Rev. 1.1

Notes:

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