

# SLA9000<sup>Series</sup>

## CMOS HIGH SPEED GATE ARRAYS

### Preliminary

#### DESCRIPTION

The SLA9000 Series is a family of sea-of-gates arrays manufactured on S-MOS' state-of-the-art 1.0 micron double-metal SiCMOS process. The series consists of 11 arrays ranging from 1,978 to 14,690 usable gates and from 86 to 226 I/O. The SLA9000 Series has been tailored for high performance designs with typical gate delays of .65 nanoseconds. Additionally, high-speed silicon efficient RAM functions are offered as customized cells. The series has a selectable output drive capability of 2, 6, 12 or 24 milliamps (two output buffers can be used in parallel to obtain 48 milliamps). The arrays are offered in a wide variety of packages including 80-256 pin quad flat packs. The SLA9000 Series is supported by S-MOS' own design system with NavNet schematic editor, as well as most major CAD systems including Mentor, Valid, Viewlogic, FutureNet, Synopsys/Verilog and OrCAD.

#### FEATURES

- 1.0 micron drawn channel length (N-Channel)
- Very high speed: tpd (2-input power NAND) (typ, FO = 2 & 2mm AL) = .65 ns/gate
- High Drive
  - 24mA for a single output
  - 48mA for parallel outputs
- Low gate-to-pads ratio for high pin count applications
- Megacells compatible
- Fully migratable to S-MOS standard cell families

#### PRODUCT CONFIGURATION

| ARRAY   | RAW GATES | USABLE RANGE |         | TOTAL PADS |
|---------|-----------|--------------|---------|------------|
|         |           | MINIMUM      | MAXIMUM |            |
| SLA904S | 4395      | 1978         | 2417    | 86         |
| SLA906S | 5990      | 2635         | 3174    | 102        |
| SLA908S | 7580      | 3259         | 3865    | 112        |
| SLA909S | 9358      | 3930         | 4679    | 126        |
| SLA912S | 11978     | 5030         | 5869    | 140        |
| SLA915S | 14823     | 6077         | 7115    | 156        |
| SLA919S | 18802     | 7708         | 8837    | 172        |
| SLA922S | 21956     | 8782         | 9980    | 186        |
| SLA926S | 25669     | 10268        | 11551   | 198        |
| SLA929S | 29162     | 11664        | 13123   | 212        |
| SLA933S | 32645     | 13058        | 14690   | 226        |

\*Note: All arrays have 8 power/GND pad included within total pad count.