Preliminary

OKI semiconductor

MSM514257RS

262,144-WORD × 4-BIT DYNAMIC RAM <Static Column>

GENERAL DESCRIPTION

The MSM514257RS is a new generation dynamic RAM organized as 262,144 words by 4 bits. The technology used to fabricate the MSM514257RS is OKI's silicon gate CMOS process technology. The device operates from a single +5V power supply. Its I/O pins are TTL compatible.

FEATURES

- Silicon gate, N-well CMOS, 1-transistor memory cell
- 262,144 words by 4 bits
- Standard 20-pin plastic DIP
- Family organization

Family	Access Time (MAX)	Cycle Time (MIN)	Power Dissipation	
			Operating (MAX)	Standby (MAX)
MSM514257-10RS	100 ns	190 ns	413 mW	11 mW
MSM514257-12RS	120 ns	220 ns	385 mW	

- Single +5V supply, ±10% tolerance
- Input: TTL compatible, address input, data input latch
- Output: TTL compatible, tristate, nonlatch
- Refresh: 512 cycles/8 ms
- Output impedance controllable through early write and OE operations
- Static column mode, read modify write capability
- $\overline{RAS}$ only refresh capability
- Built-in V_{BB} generator circuit

FUNCTIONAL BLOCK DIAGRAM