

AS4C32M16D2C-25BIN vs MT47H32M16NF-25EIT Comparison

Part Number & result Parameter	AS4C32M16D2C-25BIN	MT47H32M16NF-25EIT:H	Comparison Result
Product Description	DDR2 SDRAM	DDR2 SDRAM	Same
Capacity	512Mb (32M x 16)	512Mb (32M x 16)	Same
Memory Organization	8M, x16bits, x4 banks	8Meg, x16bits, x4 banks	Same
Operating Power Supply	V _{DD} & V _{DDQ} = 1.8V (+/- 0.1V)	V _{DD} & V _{DDQ} = 1.8V (+/- 0.1V)	Same
Operating Temperature	Industrial (-40°C to 95°C)	Industrial (-40°C to 95°C)	Same
Clock Frequency	400MHz	400MHz	Same
Data Rate (MT/s)	800	800	Same
Row address	A[12:0] (8K)	A[12:0] (8K)	Same
Column address	A[9:0] (1K)	A[9:0] (1K)	Same
Bank address	BA[1:0] (4)	BA[1:0] (4)	Same
CAS Latency	5	5	Same
tRCD & tRP (ns)	12.5	12.5	Same
Average Refresh Period	8192 cycles/64ms	8192 cycles/64ms	Same
I/O Capacitance	CIO: 2.5pf to 3.5pf	CIO: 2.5pf to 4pf	Alliance Better
Pin to Pin Compatible	Pin to Pin Compatible		Same
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification			
I _{DD0} (mA)	65	80	Alliance Better
I _{DD1} (mA)	75	95	Alliance Better
I _{DD2P} (mA)	10	10	Same
I _{DD2Q} (mA)	35	26	Micron Better
I _{DD2N} (mA)	35	30	Micron Better
I _{DD3Pf} (mA)	25	20	Micron Better
I _{DD3Ps} (mA)	20	15	Micron Better
I _{DD3N} (mA)	45	35	Micron Better
I _{DD4R} (mA)	95	150	Alliance Better
I _{DD4W} (mA)	100	160	Alliance Better
I _{DD5} (mA)	100	100	Same
I _{DD6} (mA)	10	7	Micron Better
I _{DD7} (mA)	170	215	Alliance Better
Package 84b FBGA	8 x 12.5 x 1.2mm	8 x 12.5 x 1.2mm	Same
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same