

AS4C256M8D2A-25BCN vs MT47H256M8EB-25E:C Comparison

Part Number & result Parameter	AS4C256M8D2A-25BCN	MT47H256M8EB-25E:C	Comparison Result
Product Description	DDR2 SDRAM	DDR2 SDRAM	Same
Capacity	2Gb (256M x 8)	2Gb (256M x 8)	Same
Memory Organization	32M, x8bits, x8 banks	32M, x8bits, x8 banks	Same
Operating Power Supply	V _{DD} & V _{DDQ} = 1.8V (+/-0.1V)	V _{DD} & V _{DDQ} = 1.8V (+/-0.1V)	Same
Operating Temperature	Commercial (0°C to 85°C)	Commercial (0°C to 85°C)	Same
Clock Frequency	400MHz	400MHz	Same
Data Rate (MT/s)	800	800	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	Comparable
Pin to Pin Compatible	Pin to Pin Compatible		Same
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification			
IDD Spec conditions	0C ≤ Tc ≤ 85C	0C ≤ Tc ≤ 85C	Same
I _{DD0} (mA)	62	75	Alliance Better
I _{DD1} (mA)	59	85	Alliance Better
I _{DD2P} (mA)	12	12	Comparable
I _{DD2Q} (mA)	36	30	Micron Better
I _{DD2N} (mA)	37	35	Comparable
I _{DD3Pf} (mA)	15	25	Alliance Better
I _{DD3Ps} (mA)	15	14	Alliance Better
I _{DD3N} (mA)	45	50	Alliance Better
I _{DD4R} (mA)	92	130	Alliance Better
I _{DD4W} (mA)	97	130	Alliance Better
I _{DD5} (mA)	207	170	Micron Better
I _{DD6} (mA)	15	12	Micron Better
I _{DD7} (mA)	147	220	Micron Better
Package 60b FBGA	8 x 10 x1.2mm BallArray : 6.4 x 8.0 x 0.8mm	9 x 11.5 x 1.2mm Ball Array : 6.4 x 8.0 x 0.8mm	Comparable
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same