

AS4C64M16D2A-25BAN vs MT47H64M16NF-25EAAT:M Comparison

Part Number & result Parameter	AS4C64M16D2A-25BAN	MT47H64M16NF-25EAAT :M	Comparison Result
Product Description	DDR2 SDRAM	DDR2 SDRAM	Same
Capacity	1Gb (64M x 16)	1Gb (64M x 16)	Same
Memory Organization	8M, x16bits, x8 banks	8M, x16bits, 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	Automotive (-40°C to 105°C)	Automotive (-40°C to 105°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	-40C ≤ Tc ≤ 105C VDD = 1.8V ±0.1V	0C ≤ Tc ≤ 85C VDD = 1.8V ±0.1V	Alliance Specs are for Automotive
I _{DD0} (mA)	78	80	Comparable
I _{DD1} (mA)	90	95	Alliance Better
I _{DD2P} (mA)	12	10	Comparable
I _{DD2Q} (mA)	42	26	Micron Better
I _{DD2N} (mA)	42	30	Comparable
I _{DD3Pf} (mA)	30	30	Comparable
I _{DD3Ps} (mA)	24	20	Comparable
I _{DD3N} (mA)	54	38	Micron Better
I _{DD4R} (mA)	114	150	Alliance Better
I _{DD4W} (mA)	126	160	Alliance Better
I _{DD5} (mA)	120	160	Alliance Better
I _{DD6} (mA)	20	7	Micron Better
I _{DD7} (mA)	204	260	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