AS4C4M32SA - 6TxN vs MT48LC4M32B2P - 6A Comparison

Part Number & result / Parameter	AS4C4M32SA - 6TCN AS4C4M32SA-6TIN	MT48LC4M32B2P - 6A MT48LC4M32B2P-6A IT	Comparison Result
Product Description	SDRAM	SDRAM	Same
Capacity	128Mb (4M x 32)	128Mb (4M x 32)	Same
Memory Organization	1M, x32 bits, x4 banks	1M, x32 bits, x4 banks	Same
Operating Power Supply	V_{DD} & V_{DDQ} = 3.3V (+/-0.3V)	V_{DD} & V_{DDQ} = 3.3V (+/-0.3V)	Same
Operating Temperature	Industrial (- 40°C to 85°C) Commercial (0°C~+70°C)	Industrial (- 40°C to 85°C) Commercial (0°C~+70°C)	Same
Clock Frequency	166MHz	166MHz	Same
Clock Cycle time (ns)	6	6	Same
CAS Latency	2 or 3	1 or 2 or 3	Comparable
tRCD & tRP (ns)	18	18	Same
Refresh Cycles	4096 refresh cycles/64ms	4096 cycles/64ms	Same
I/O Capacitance	CIO: 5.5pf to 7.5pf	CIO: 4pf to 6pf	Comparable
Pin to Pin Compatible	Pin to Pin Compatible		Same
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification			
IDD Spec conditions	-40C ≤ Ta ≤ 85C VDD/Q = 3.3V ±0.3V	-40C ≤ Ta ≤ 85C VDD/Q = 3.3V ±0.3V	Same
I_{DD1} (mA)	160	120	Micron Better
I_{DD2N} (mA)	50	NA	
I_{DD2NS} (mA)	30	NA	
I_{DD2P} (mA)	3	2.5	Comparable
I_{DD2PS} (mA)	3	NA	
I_{DD3N} (mA)	60	45	Micron Better
I_{DD3NS} (mA)	50	NA	
I_{DD4} (mA)	200	120	Micron Better
I_{DD5} (mA)	260	180	Micron Better
I_{DD6} (mA)	3	3	Same
Package	86p TSOP II (400mils) Plastic	86p TSOP II (400mils) Plastic	Same
Package Material	Pb & Halogen Free	Pb & Halogen Free	Same