

AS4C32M16D1A-5TIN vs MT46V32M16P-5B IT:J Comparison

Part Number & result Parameter	AS4C32M16D1A-5TIN	MT46V32M16P-5BIT:J	Comparison Result
Product Description	DDR1 SDRAM	DDR1 SDRAM	Same
Capacity	512Mb (32M x 16)	512Mb (32M x 16)	Same
Memory Organization	8M, x16bits, x4 banks	8M, x16bits, x4 banks	Same
Operating Power Supply	V _{DD} & V _{DDQ} = 2.5V (+/-0.2V)	V _{DD} & V _{DDQ} = 2.6V (+/-0.1V)	Comparable
Operating Temperature	Industrial (-40°C to 85°C)	Industrial (-40°C to 85°C)	Same
Clock Frequency	200MHz	200MHz	Same
Data Rate (MT/s)	400	400	Same
CAS Latency	3	3	Same
tRCD & tRP (ns)	15	15	Same
Average Refresh Period	8192 cycles/64ms	8192 cycles/64ms	Same
I/O Capacitance	4-5pf	4-5pf	Same
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 = 2.5V ±0.2V	0C ≤ TA ≤ 70C VDD = 2.6V ±0.1V	Alliance Better
I _{DD0} (mA)	80	75	Comparable
I _{DD1} (mA)	90	85	Comparable
I _{DD2P} (mA)	5	5	Comparable
I _{DD2F} (mA)	35	23	Comparable
I _{DD2Q} (mA)	35	NA	NA
I _{DD3P} (mA)	20	18	Comparable
I _{DD3N} (mA)	65	40	Comparable
I _{DD4R} (mA)	130	125	Comparable
I _{DD4W} (mA)	130	120	Comparable
I _{DD5} (mA)	140	125	Comparable
I _{DD6} (mA)	6	5	Comparable
I _{DD7} (mA)	210	230	Alliance Better
Package	66pin TSOP (400mils)	66pin TSOP (400mils)	Same
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same