

AS4C128M16D2A-25BIN vs IM2G16D2DBBG-25 Comparison

Part Number & result Parameter	AS4C128M16D2A-25BIN	IM2G16D2DBBG-25	Comparison Result
Product Description	DDR2 SDRAM	DDR2 SDRAM	Same
Capacity	2Gb (128M x 16)	2Gb (128M x 16)	Same
Memory Organization	16M, x8bits, x8 banks	16M, 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	Industrial (-40°C to 95°C)	Commercial (0°C to 95°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 3.5pf	Same
Pin to Pin Compatible	Pin to Pin Compatible		Same
AC/DC Characteristics	Same	Same	Meet JEDEC
IDD Specification			
IDD Spec conditions	-40C ≤ Tc ≤ 95C	-40C ≤ Tc ≤ 95C	Same
I _{DD0} (mA)	130	83	IM better
I _{DD1} (mA)	150	91	IM better
I _{DD2P} (mA)	16	12	IM better
I _{DD2Q} (mA)	70	45	IM better
I _{DD2N} (mA)	70	50	IM better
I _{DD3Pf} (mA)	46	16	IM better
I _{DD3Ps} (mA)	32	16	IM better
I _{DD3N} (mA)	90	55	IM better
I _{DD4R} (mA)	180	170	IM better
I _{DD4W} (mA)	180	150	IM better
I _{DD5} (mA)	290	160	IM better
I _{DD6} (mA)	12	12	Same
I _{DD7} (mA)	330	250	IM better
Package 84b FBGA	8 x 12.5 x1.2mm Ball Array : 6.4 x 8.0 x 0.8mm	10.5 x 12.5 x1.2mm Ball Array : 6.4 x 8.0 x 0.8mm	Same
Package Material	Pb and Halogen Free	Pb and Halogen Free	Same