

# MOS Memories

## ■ 16MDRAM (5V version)

Supply voltage: 4.5 ~ 5.5V

Organization (words × bits)	Type No.	Access time max. (ns)	Cycle time min. (ns)	Refresh (cycles/ms)	Maximum Supply Current		Package	No.	Remarks
					Active (mA)	Standby ( $\mu$ A)			
16M × 1	MN4116100ASJ	60/70	110/130	4096/64	80/70	1000	SOJ026-P-0300B	M11	Fast page mode
	MN4116100ATT	60/70	110/130	4096/64	80/70	1000	TSOP026-P-0300B	M21	Fast page mode
	MN4117100ASJ	60/70	110/130	2048/32	120/105	1000	SOJ026-P-0300B	M11	Fast page mode
	MN4117100ATT	60/70	110/130	2048/32	120/105	1000	TSOP026-P-0300B	M21	Fast page mode
4M × 4	MN4116400ASJ	60/70	110/130	4096/64	80/70	1000	SOJ026-P-0300B	M11	Fast page mode
	MN4116400ATT	60/70	110/130	4096/64	80/70	1000	TSOP026-P-0300B	M21	Fast page mode
	MN4117400ASJ	60/70	110/130	2048/32	120/105	1000	SOJ026-P-0300B	M11	Fast page mode
	MN4117400ATT	60/70	110/130	2048/32	120/105	1000	TSOP026-P-0300B	M21	Fast page mode
1M × 16	MN4116160ASJ	60/70	110/130	4096/64	90/80	1000	SOJ042-P-0400	M14	Fast page mode
	MN4116160ATT	60/70	110/130	4096/64	90/80	1000	TSOP050-P-0400A	M24	Fast page mode
	MN4118160ASJ	60/70	110/130	1024/16	180/160	1000	SOJ042-P-0400	M14	Fast page mode
	MN4118160ATT	60/70	110/130	1024/16	180/160	1000	TSOP050-P-0400A	M24	Fast page mode
	▲MN4116165ASJ	60/70	110/130	4096/64	90/80	1000	SOJ042-P-0400	M14	EDO mode 2CAS · 1WE
	▲MN4116165ATT	60/70	110/130	4096/64	90/80	1000	TSOP050-P-0400A	M24	EDO mode 2CAS · 1WE
	▲MN4118165ASJ	60/70	110/130	1024/16	150/140	1000	SOJ042-P-0400	M14	EDO mode 2CAS · 1WE
	▲MN4118165ATT	60/70	110/130	1024/16	150/140	1000	TSOP050-P-0400A	M24	EDO mode 2CAS · 1WE

▲Under development

## ■ 16MDRAM (3.3V version)

Supply voltage: 3.0 ~ 3.6V

Organization (words × bits)	Type No.	Access time max. (ns)	Cycle time min. (ns)	Refresh (cycles/ms)	Maximum Supply Current		Package	No.	Remarks
					Active (mA)	Standby ( $\mu$ A)			
16M × 1	MN41V16100ASJ	50/60/70	90/110/130	4096/64	80/70/60	500	SOJ026-P-0300B	M11	Fast page mode
	MN41V16100ATT	50/60/70	90/110/130	4096/64	80/70/60	500	TSOP026-P-0300B	M21	Fast page mode
	MN41V17100ASJ	50/60/70	90/110/130	2048/32	130/110/95	500	SOJ026-P-0300B	M11	Fast page mode
	MN41V17100ATT	50/60/70	90/110/130	2048/32	130/110/95	500	TSOP026-P-0300B	M21	Fast page mode
4M × 4	MN41V16400ASJ	50/60/70	90/110/130	4096/64	80/70/60	500	SOJ026-P-0300B	M11	Fast page mode
	MN41V16400ATT	50/60/70	90/110/130	4096/64	80/70/60	500	TSOP026-P-0300B	M21	Fast page mode
	MN41V17400ASJ	50/60/70	90/110/130	2048/32	130/110/95	500	SOJ026-P-0300B	M11	Fast page mode
	MN41V17400ATT	50/60/70	90/110/130	2048/32	130/110/95	500	TSOP026-P-0300B	M21	Fast page mode
1M × 16	MN41V16160ATT	60/70	110/130	4096/64	90/80	1000	TSOP050-P-0400A	M24	Fast page mode 2CAS · 1WE
	MN41V18160ATT	60/70	110/130	1024/16	180/160	1000	TSOP050-P-0400A	M24	Fast page mode 2CAS · 1WE
	▲MN41V16165ATT	60/70	110/130	4096/64	90/80	1000	TSOP050-P-0400A	M24	EDO mode 2CAS · 1WE
	▲MN41V18165ATT	60/70	110/130	1024/16	180/160	1000	TSOP050-P-0400A	M24	EDO mode 2CAS · 1WE

▲Under development

(Package Symbol) SOJ = S\_mall-Q\_outline J-Bend Package, TSOP = T\_hin S\_mall Q\_outline P\_package