

MR26V25655J

8M-Word × 32-Bit or 16M-Word × 16-Bit Page Mode P2ROM

FEATURES

- 8,388,608-word × 32-bit/16,777,216-word × 16-bit electrically switchable configuration
- Page size of 8-word x 32-Bit or 16-word x 16-Bit
- 3.0 V to 3.6 V power supply
- Random Access time 120 ns MAX
- Page Access time 35 ns MAX
- Operating current 100 mA MAX
- Standby current 50 µA MAX
- Input/Output TTL compatible
- Three-state output

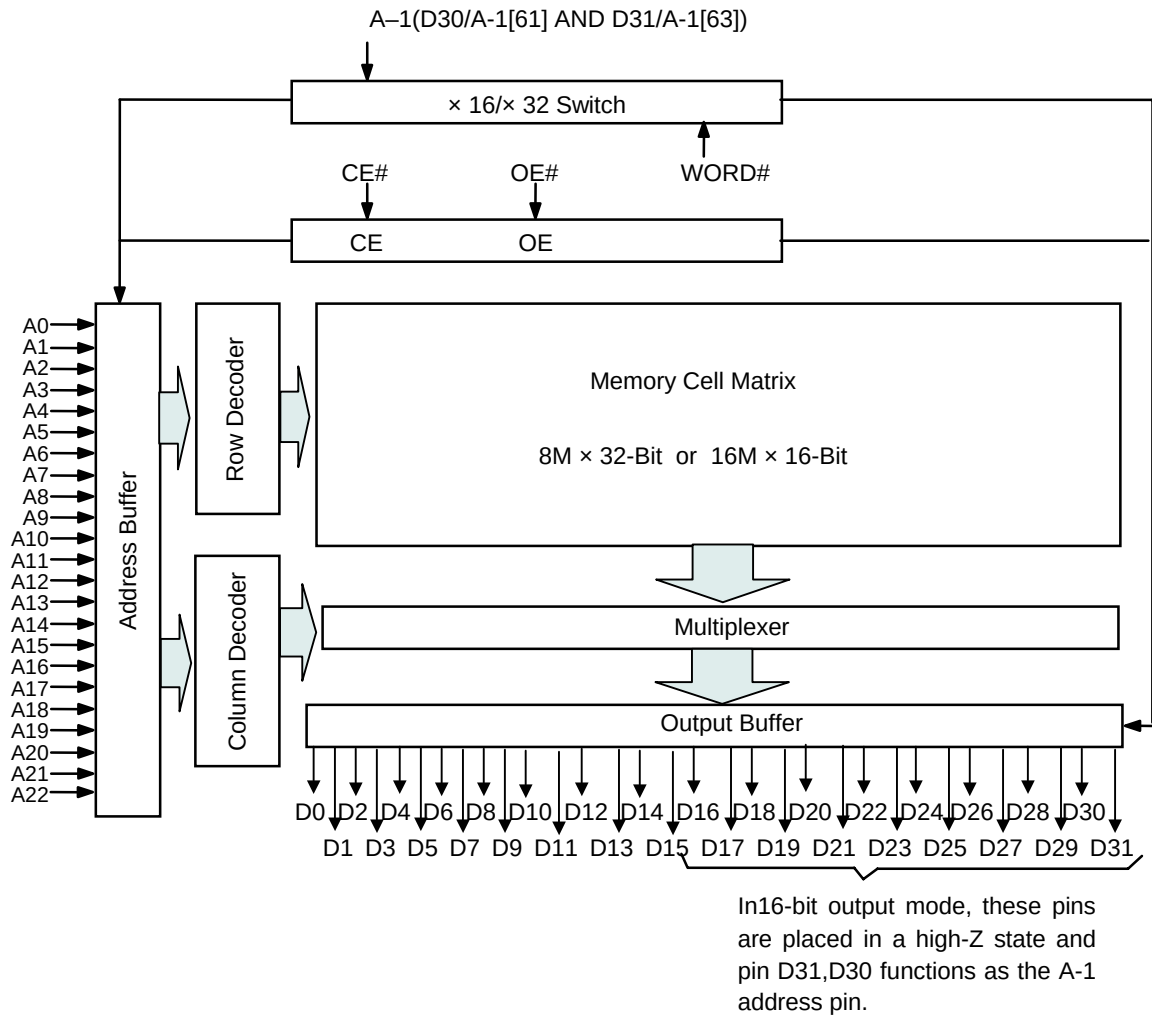
PACKAGES

- MR26V25655J-xxxMB
70-pin plastic SSOP (P-SSOP70-500-0.80-K-MC)

PIN CONFIGURATION (TOP VIEW)

A0	1	70	A22
A1	2	69	A21
A2	3	68	A20
A3	4	67	WORD#
A4	5	66	OE#
A5	6	65	CE#
Vcc	7	64	Vss
D0	8	63	D31/A-1
D16	9	62	D15
D1	10	61	D30/A-1
D17	11	60	D14
Vss	12	59	Vss
Vcc	13	58	Vcc
D2	14	57	D29
D18	15	56	D13
D3	16	55	D28
D19	17	54	D12
D4	18	53	D27
D20	19	52	D11
D5	20	51	D26
D21	21	50	D10
Vss	22	49	Vss
Vcc	23	48	Vcc
D6	24	47	D25
D22	25	46	D9
D7	26	45	D24
D23	27	44	D8
Vss	28	43	Vcc
A6	29	42	A19
A7	30	41	A18
A8	31	40	A17
A9	32	39	A16
A10	33	38	A15
A11	34	37	A14
A12	35	36	A13

BLOCK DIAGRAM



PIN DESCRIPTIONS

Pin name	Functions
D31 / A-1, D30/A-1	Data output / Address input
A0 to A22	Address inputs
D0 to D29	Data outputs
CE#	Chip enable input
OE#	Output enable input
WORD#	Word -Byte select input
V _{CC}	Power supply voltage
V _{SS}	Ground

FUNCTION TABLE

Mode	CE#	OE#	WORD#	V _{CC}	D0 to D15	D16 to D29	D30/A-1,D31/A-1
Read (32-Bit)	L	L	H	3.3 V	D _{OUT}		
Read (16Bit)	L	L	L		D _{OUT}	Hi-Z	L/H
Output disable	L	H	H		Hi-Z		
			L				
Standby	H	*	H		Hi-Z		
			L				

*: Don't Care (H or L)

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Condition	Value	Unit
Operating temperature under bias	T _a	—	0 to 70	°C
Storage temperature	T _{stg}		-55 to 125	°C
Input voltage	V _I	relative to V _{SS}	-0.5 to V _{CC} +0.5	V
Output voltage	V _O		-0.5 to V _{CC} +0.5	V
Power supply voltage	V _{CC}		-0.5 to 5	V
Power dissipation per package	P _D	—	1.0	W

RECOMMENDED OPERATING CONDITIONS

(T_a = 0 to 70°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
V _{CC} power supply voltage	V _{CC}	V _{CC} = 3.0 to 3.6 V	3.0	—	3.6	V
Input "H" level	V _{IH}		2.2	—	V _{CC} +0.5*	V
Input "L" level	V _{IL}		-0.5**	—	0.6	V

Voltage is relative to V_{SS}.* : V_{CC}+1.5V(Max.) when pulse width of overshoot is less than 10ns.

** : -1.5V(Min.) when pulse width of undershoot is less than 10ns.

PIN CAPACITANCE

(V_{CC} = 3.3 V, T_a = 25°C, f = 1 MHz)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Input	C _{IN1}	V _I = 0 V	—	—	30	pF
WORD#	C _{IN2}		—	—	400	
Output	C _{OUT}	V _O = 0 V	—	—	20	

ELECTRICAL CHARACTERISTICS

DC Characteristics

(V_{CC} = 3.3 V ± 0.3 V, Ta = 0 to 70°C)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Input leakage current	I _{LI}	V _I = 0 to V _{CC}	—	—	20	μA
Output leakage current	I _{LO}	V _O = 0 to V _{CC}	—	—	20	μA
V _{CC} power supply current (Standby)	I _{CCSC}	CE# = V _{CC}	—	—	50	μA
	I _{CCST}	CE# = V _{IH}	—	—	1	mA
V _{CC} power supply current (Read)	I _{CCA1}	CE# = V _{IL} OE# = V _{IH} tc = 200 ns	—	—	100	mA
Input "H" level	V _{IH}	—	2.2	—	V _{CC} +0.5*	V
Input "L" level	V _{IL}	—	-0.5**	—	0.6	V
Output "H" level	V _{OH}	I _{OH} = -2 mA	2.4	—	—	V
Output "L" level	V _{OL}	I _{OL} = 2 mA	—	—	0.4	V

Voltage is relative to V_{SS}.* : V_{CC}+1.5V(Max.) when pulse width of overshoot is less than 10ns.

** : -1.5V(Min.) when pulse width of undershoot is less than 10ns.

AC Characteristics

(V_{CC} = 3.3 V ± 0.3 V, Ta = 0 to 70°C)

Parameter	Symbol	Condition	Min.	Max.	Unit
Address cycle time	t _C	—	120	—	ns
Address access time	t _{ACC}	CE# = OE# = V _{IL}	—	120	ns
Page cycle time	t _{PC}	—	35	—	ns
Page access time	t _{PAC}	CE# = OE# = V _{IL}	—	35	ns
CE# access time	t _{CE}	OE# = V _{IL}	—	120	ns
OE# access time	t _{OE}	CE# = V _{IL}	—	30	ns
Output disable time	t _{CHZ}	OE# = V _{IL}	0	20	ns
	t _{OHZ}	CE# = V _{IL}	0	20	ns
Output hold time	t _{OH}	CE# = OE# = V _{IL}	0	—	ns

Measurement conditions

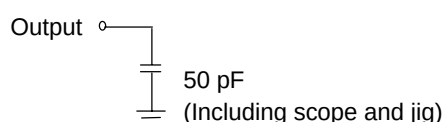
Input signal level----- 0 V/3 V

Input timing reference level----- 1/2V_{CC}

Output load ----- 50 pF

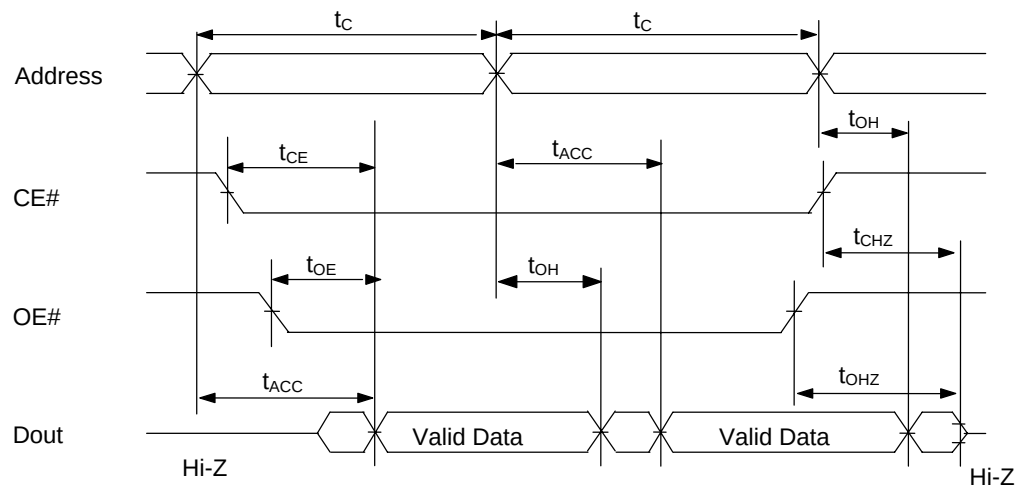
Output timing reference level----- 1/2V_{CC}

Output load

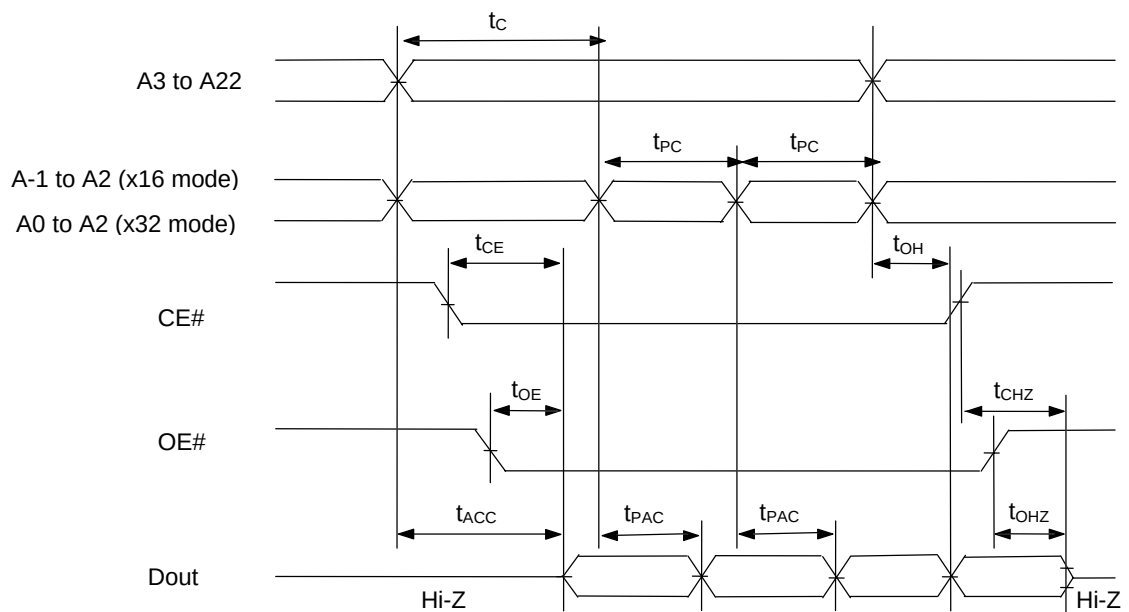


TIMING CHART (READ CYCLE)

Random Access Mode Read Cycle

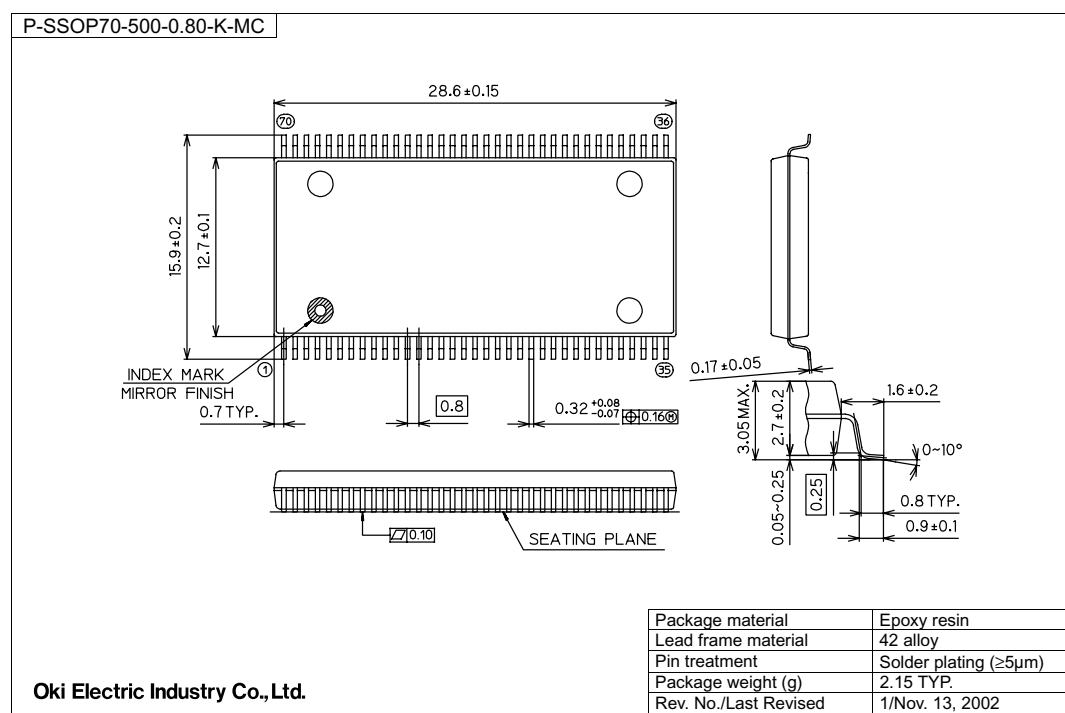


Page Access Mode Read Cycle



PACKAGE DIMENSIONS

(Unit: mm)



Notes for Mounting the Surface Mount Type Package

The surface mount type packages are very susceptible to heat in reflow mounting and humidity absorbed in storage.

Therefore, before you perform reflow mounting, contact Oki's responsible sales person for the product name, package name, pin number, package code and desired mounting conditions (reflow method, temperature and times).

REVISION HISTORY

Document No.	Date	Page		Description
		Previous Edition	Current Edition	
FEDR26V25655J-02-01	May. 2003	—	—	Final edition 1
FEDR26V25655J-02-02	Jun., 2003	1, 4	1, 4	Change t_{PAC} to 30ns from 35ns
		4	4	Change V_{OH} Condition to $I_{OH} = -2$ mA
		4	4	Change t_{OE}, t_{CHZ} to 30ns from 40ns
		4	4	Change t_{OHZ} to 25ns from 35ns
		5	5	Change Timing Chart description
FEDR26V25655J-02-03	Jan.15, 2004	4	4	Change t_{CHZ}, t_{OHZ} to 20ns
FEDR26V25655J-02-04	Mar.26, 2004	1, 4	1, 4	Change t_{PC}, t_{PAC} to 35ns
FEDR26V25655J-02-05	Jun. 8, 2004	3	3	Change C_{IN1}, C_{OUT} to 30pF,20pF

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