

MR26V25655J

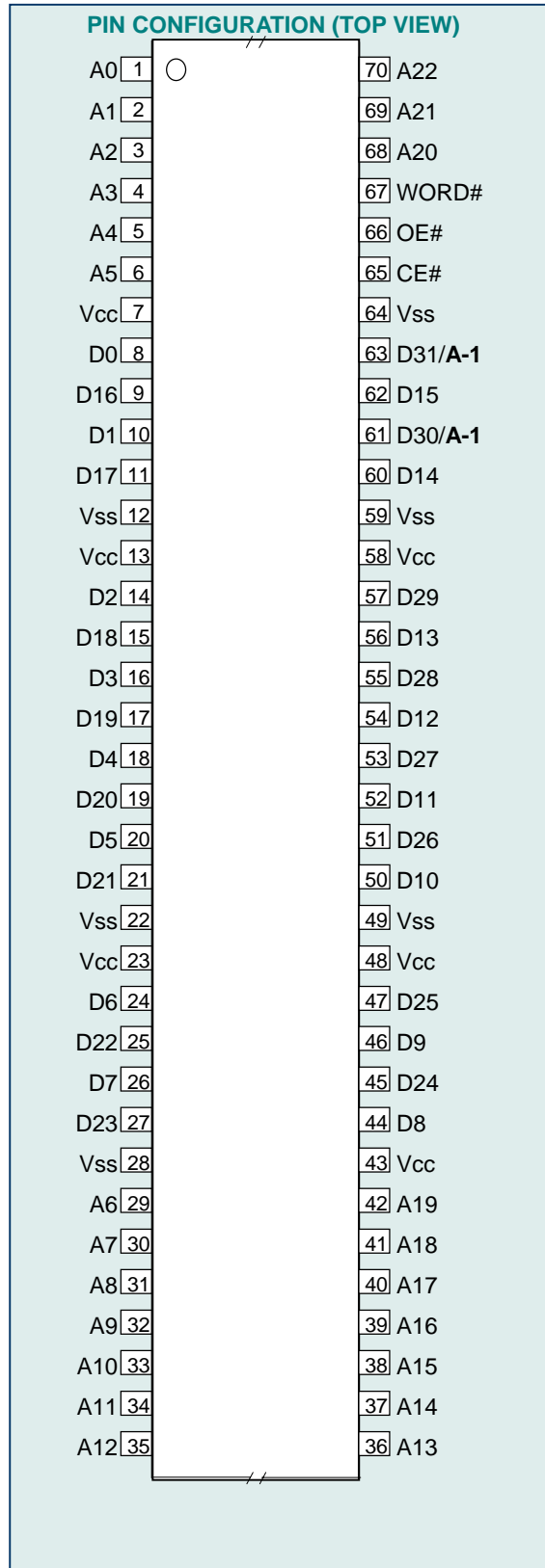
8M-Word × 32-Bit or 16M-Word × 16-Bit Page Mode P2ROM

FEATURES

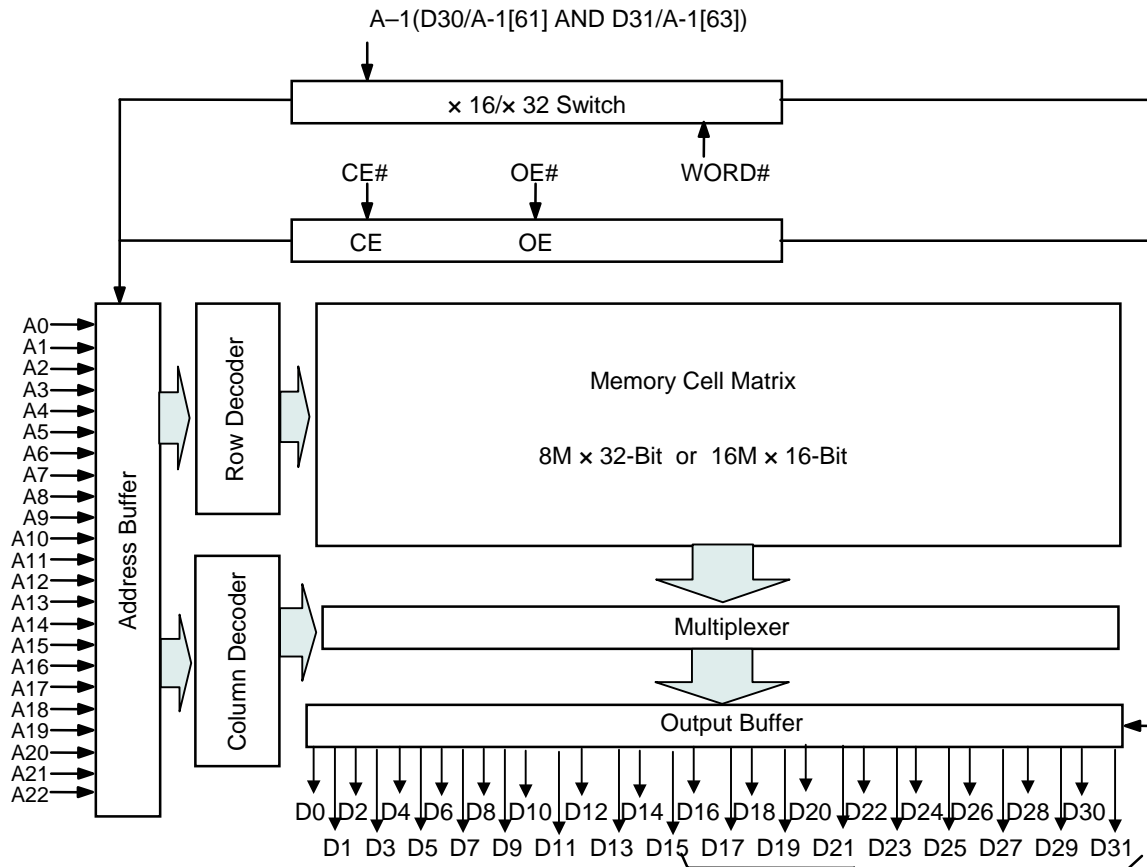
- 8,388,608-word × 32-bit/16,777,216-word × 16-bit electrically switchable configuration
- Page size of 8-word x 32-Bit or 16-word x 16-Bit
- 3.0 V to 3.6 V power supply
- Random Access time 120 ns MAX
- Page Access time 35 ns MAX
- Operating current 100 mA MAX
- Standby current 50 μA MAX
- Input/Output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

PACKAGES

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



BLOCK DIAGRAM



In 16-bit output mode, these pins are placed in a high-Z state and pin D31, D30 functions as the A-1 address pin.

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

($V_{CC} = 3.3 \text{ V} \pm 0.3 \text{ V}$, $T_a = 0 \text{ to } 70^\circ\text{C}$)

Parameter	Symbol	Condition	Min.	Typ.	Max.	Unit
Input leakage current	I_{LI}	$V_I = 0 \text{ to } V_{CC}$	—	—	20	μA
Output leakage current	I_{LO}	$V_O = 0 \text{ to } V_{CC}$	—	—	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}	$CE\# = V_{IL}$ $OE\# = V_{IH}$ $t_c = 200 \text{ ns}$	—	—	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}	$I_{OH} = -2 \text{ mA}$	2.4	—	—	V
Output "L" level	V_{OL}	$I_{OL} = 2 \text{ mA}$	—	—	0.4	V

Voltage is relative to V_{SS} .

* : $V_{CC} + 1.5\text{V}(\text{Max.})$ when pulse width of overshoot is less than 10ns.

** : $-1.5\text{V}(\text{Min.})$ when pulse width of undershoot is less than 10ns.

AC Characteristics

($V_{CC} = 3.3 \text{ V} \pm 0.3 \text{ V}$, $T_a = 0 \text{ to } 70^\circ\text{C}$)

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

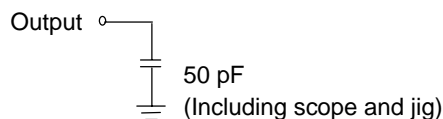
Input signal level----- 0 V/3 V

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

Output load ----- 50 pF

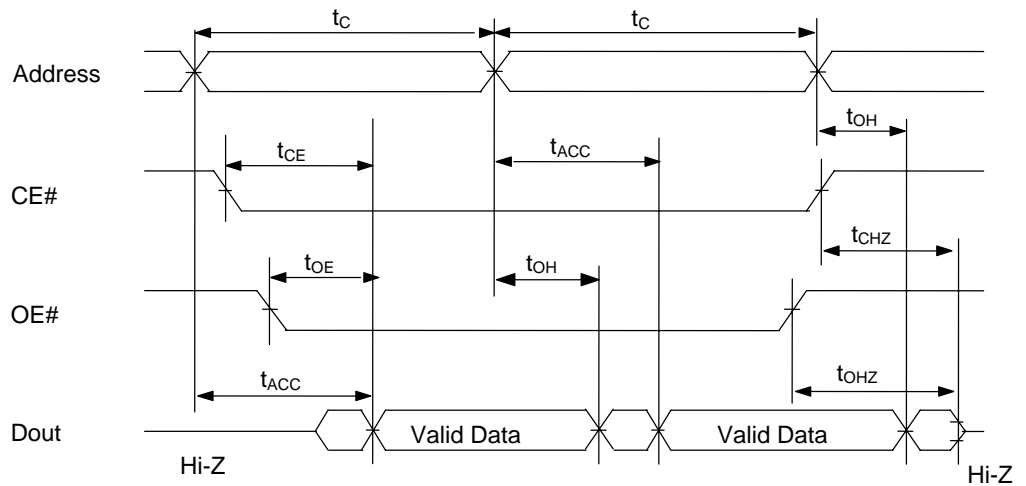
Output timing reference level----- $1/2V_{CC}$

Output load

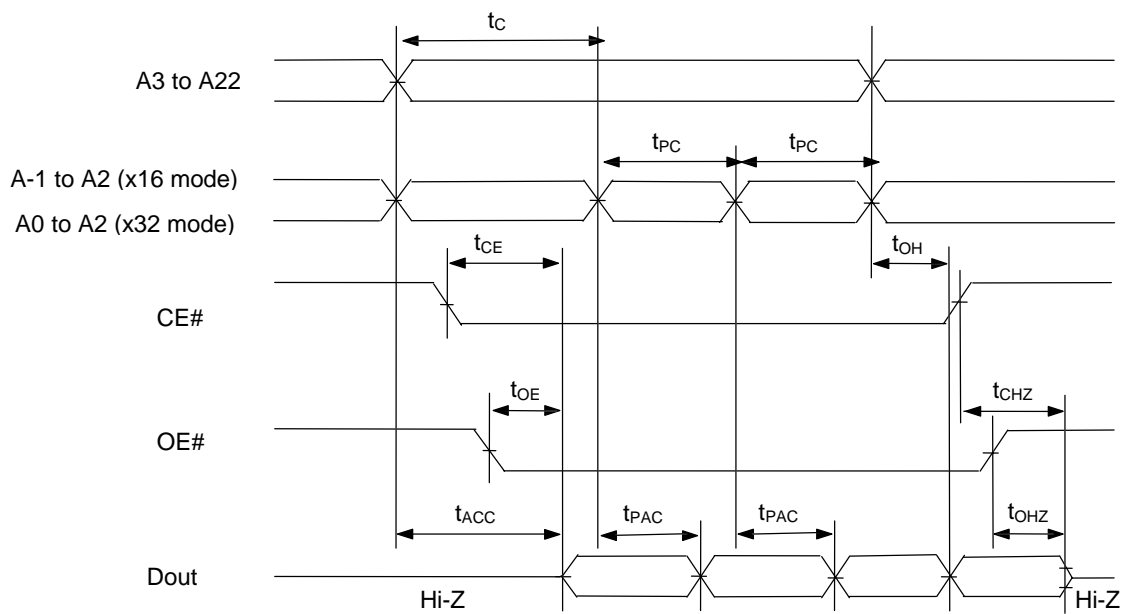


TIMING CHART (READ CYCLE)

Random Access Mode Read Cycle

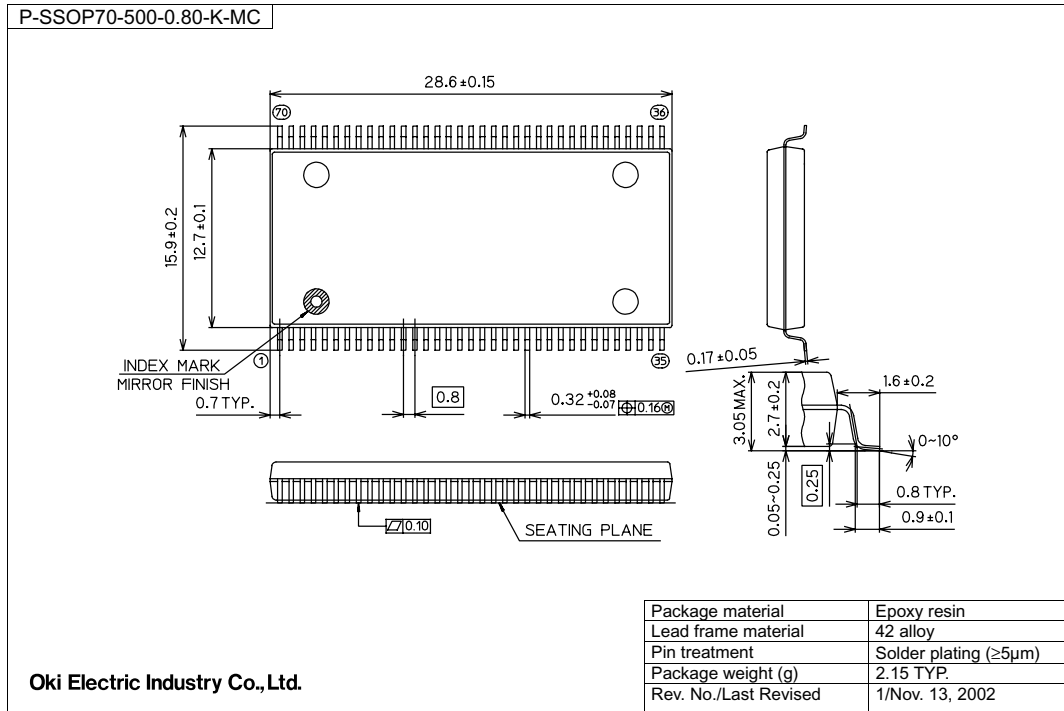


Page Access Mode Read Cycle



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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