

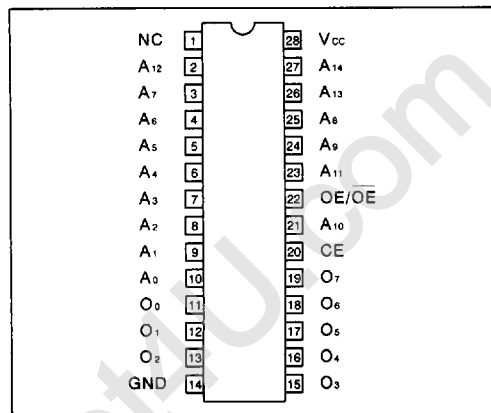
RICOH

RP/RS53256E

CMOS 256kbit MASK ROM

(32,768 word × 8 bit)

PIN CONFIGURATION (TOP VIEW)



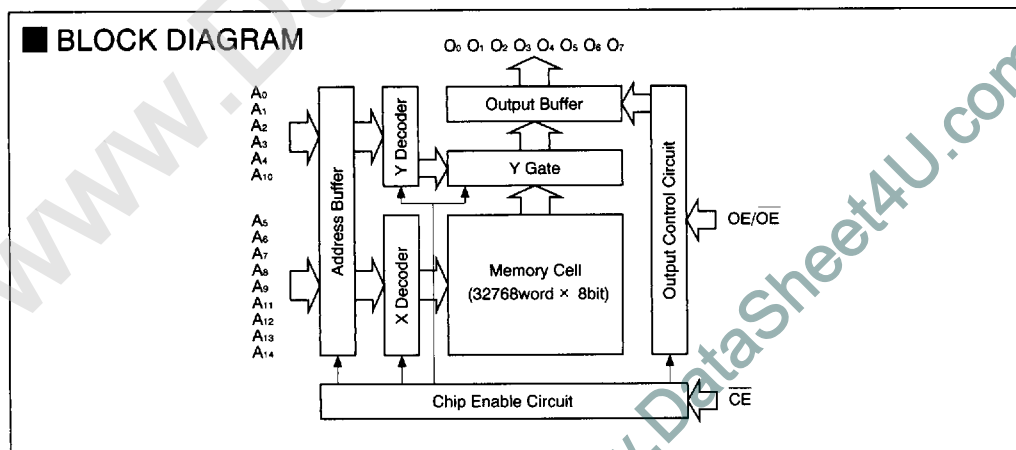
FEATURES

1. Organization: 32768 words × 8 bits
2. Access Time: 200 ns
3. TTL Compatible Input/Output
4. Single 5V Power Supply
5. Package RP53256E . . . 28pin DIP
RS53256E . . . 28pin SOP

PIN DESCRIPTION

Pin Name	Function
A ₀ ~A ₁₄	Address Input
O ₀ ~O ₇	Data Output
OE/ $\overline{\text{OE}}$	Output Enable Input
CE	Chip Enable Input
V _{CC}	Power Supply (+5V)
GND	Ground

BLOCK DIAGRAM



RICOH

■ ABSOLUTE MAXIMUM RATING

Symbol	Parameter	Condition	Limit	Unit
V _{cc}	Supply Voltage	With respect to GND	- 0.3 ~ 7	V
V _i	Input Voltage		- 0.3 ~ V _{cc} + 0.3	V
V _o	Output Voltage		- 0.3 ~ V _{cc} + 0.3	V
P _d	Power Consumption	T _a = 25°C	350	mW
T _{opr}	Operating Temperature		0 ~ 70	°C
T _{stg}	Storage Temperature		- 40 ~ 125	°C

■ RECOMMENDED OPERATING CONDITION (T_a=0~70°C)

Symbol	Parameter	Min.	Typ.	Max.	Unit
V _{cc}	Supply Voltage	4.5	5.0	5.5	V

■ ELECTRICAL CHARACTERISTICS

● DC ELECTRICAL CHARACTERISTICS (T_a=0~70°C、V_{cc}=5V ±10%)

Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
I _{cc1}	Supply Current (Operation)	t _{RC} = 200 ns			50	mA
I _{SB1}	Supply Current (Stand by)	CE = V _{IH}			2	mA
I _{SB2}		CE = V _{cc} - 0.2V			100	μA
V _{OH}	" H " Output Voltage	I _{OH} = - 0.4 mA	2.4			V
V _{OL}	" L " Output Voltage	I _{OL} = 1.6 mA			0.4	V
V _{IH}	" H " Input Voltage		2.2		V _{cc}	V
V _{IL}	" L " Input Voltage		- 0.3		0.8	V
I _{LI}	Input Lenkage Current	V _i = 0V ~ V _{cc}	- 10		10	μA
I _{LO}	Output Leakage Current	V _o = 0V ~ V _{cc} Chip Deselected	- 10		10	μA

The supply current is measured at output open state.

● AC ELECTRICAL CHARACTERISTICS ($T_a=0\sim 70^{\circ}\text{C}$, $V_{cc}=5\text{V} \pm 10\%$)

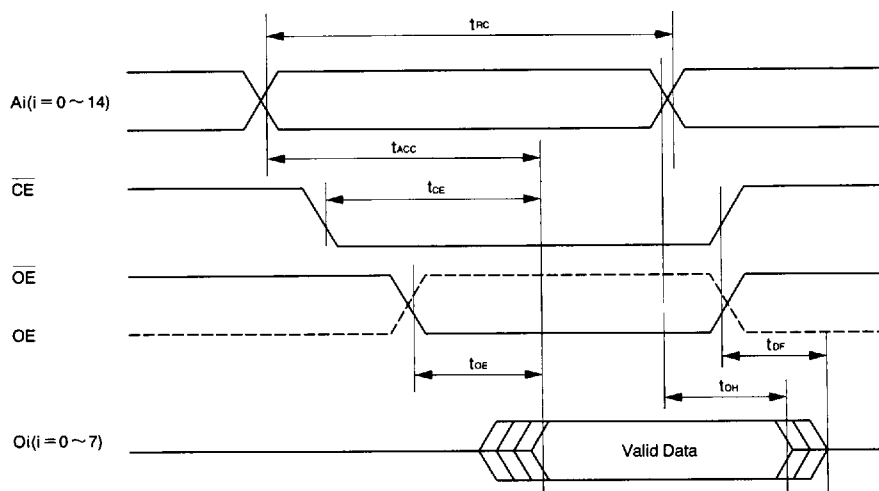
Symbol	Parameter	Min.	Typ.	Max.	Unit
t_{RC}	Read Cycle Time	200			ns
t_{ACC}	Address Access Time			200	ns
t_{CE}	Chip Enable Access Time			200	ns
t_{OE}	Output Enable Access Time			80	ns
t_{DF}	Output Floating Delay Time	0		80	ns
t_{OH}	Output Hold Time	0			ns

Input Voltage : $V_{IL} = 0.6\text{V}$, $V_{IH} = 2.4\text{V}$, $t_r, t_f = 10\text{ ns}$

Output Load : 1 TTL + 100 pF

Measuring Voltage : $V_{IL} = 0.8\text{V}$, $V_{IH} = 2.2\text{V}$, $V_{OL} = 0.8\text{V}$, $V_{OH} = 2.2\text{V}$

● TIMING CHART

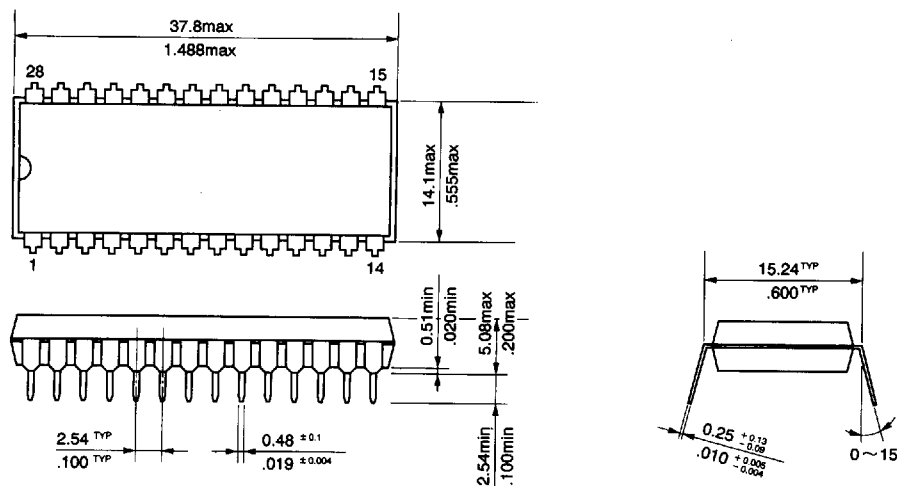


● CAPACITANCE

Symbol	Parameter	Condition	Min.	Typ.	Max.	Unit
C_i	Input Capacitance	$f = 1\text{MHz}$			10	pF
C_o	Output Capacitance				12	pF

■ PACKAGE DIMENSION (Unit : mm/inch)

● 28PIN DIP (RP53256E)



● 28PIN SOP (RS53256E)

