

Description

The HY23V16202 high performance read only memory is organized either as 2,097,152 x 8 bit (byte mode) or as 1,048,576 x 16 bit (word mode) followed by BHE mode select. The low power feature allows the battery operation. The large size of 16M bit memory density is ideal for character generator, data or program memory in micro-processor application. The HY23V16202 is packaged 42pin DIP, 44 pin SOP, 44 pin TSOP-II or 48 pin TSOP-I.

Key features

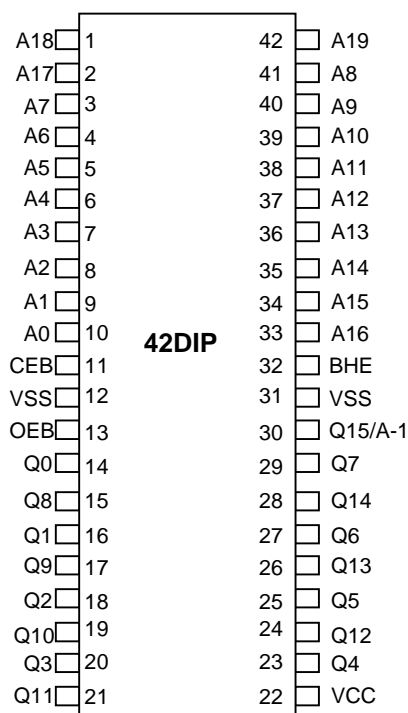
- Switchable Organization
Byte Mode : 2,097,152 X 8 bit
Word Mode : 1,048,576 X 16 bit
- Single 3.3V power supply operation
- Access Time : 100/120ns (Max)
- Standby Current : 50 μ A (Max)
- Operating Current : 35mA (Max)
- TTL compatible inputs and outputs
- 3-State outputs for wired-OR expansion
- Word or Byte switchable by BHE pin
- Fully static operation
- Package

HY23V16202D : 42pin Plastic DIP(600 mil)
 HY23V16202S : 44pin Plastic SOP(500mil)
 HY23V16202T : 44pin Plastic TSOP-II(400mil)
 HY23V16202M : 48pin Plastic TSOP-I(12x20mm)
 HY23V16202F : 48pin Plastic TSOP-I(12x20mm)

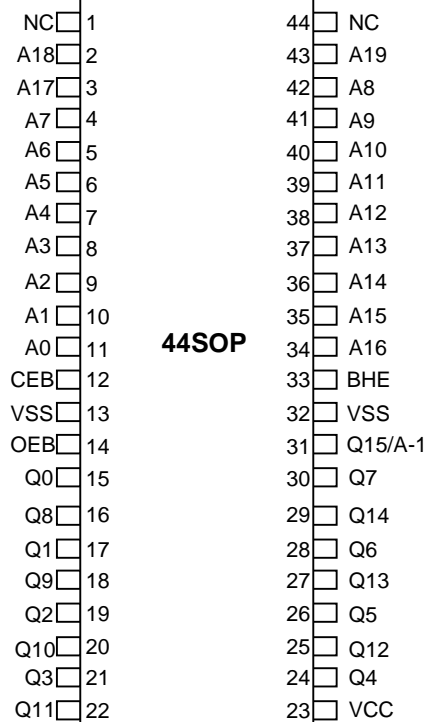
Pin Description

Pin	Function
A0~A19	Address inputs
Q0~Q14	Data Outputs
Q15/A-1	Output Q15(Word Mode)/ LSB Address(Byte Mode)
BHE	Byte High Enable input (Word/Byte selection)
CEB*	Chip Enable input
OEB*	Output Enable input
VCC	Power supply
VSS	Ground
NC	No Connection

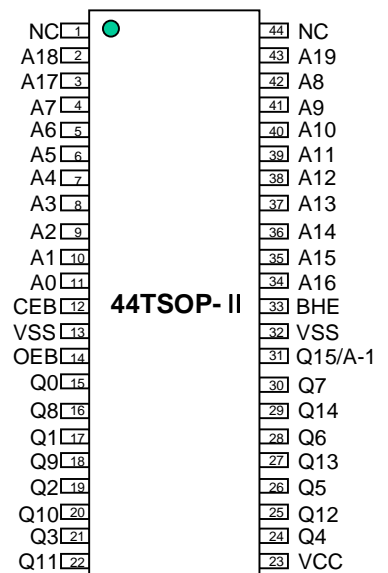
Pin Configuration



HY23V16202D

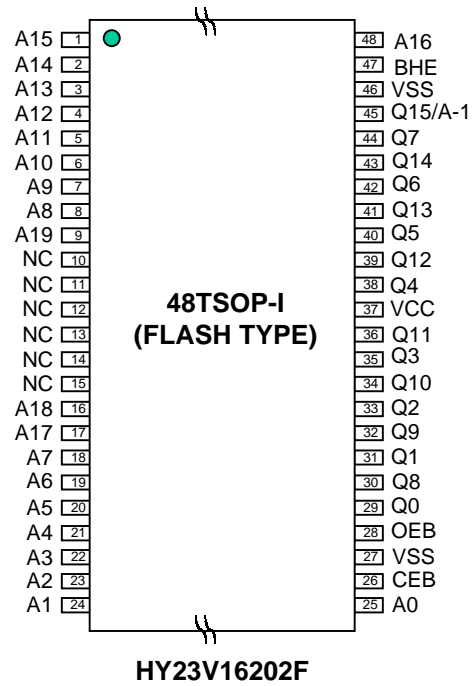
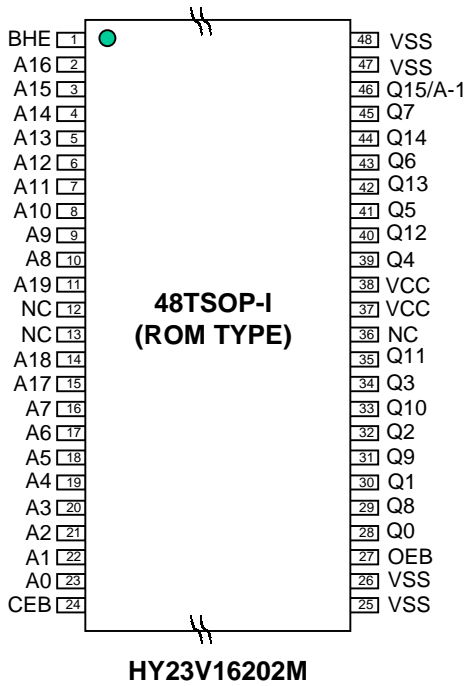


HY23V16202S

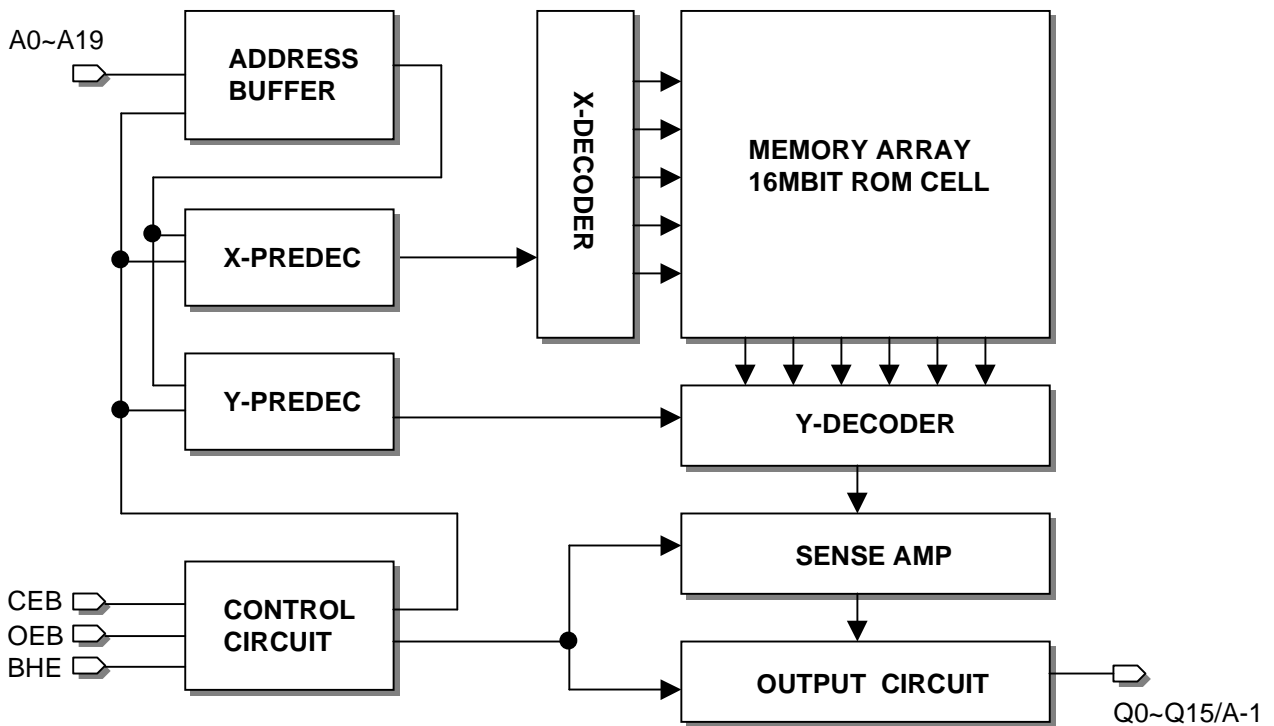


HY23V16202T

* User selectable polarity



Block Diagram



□ Absolute Maximum Ratings

Symbol	Parameter	Rating	Unit
TA	Ambient Operating Temperature	-10 ~ 80	°C
TSTG	Storage Temperature	-55 ~ 150	°C
VCC	Supply Voltage to Ground Potential	-0.3 ~ 4.5	V
VOUT	Output Voltage	-0.3~Vcc+0.3	V
VIN	Input Voltage	-0.3~Vcc+0.3	V

Stress above those listed under “absolute maximum ratings” may cause permanent damage to the device. These are stress ratings only. Functional operation of this device at these or any other conditions above those indicated in the operational sections of this specification is not implied and exposure to absolute maximum rating conditions for extended periods may affect device reliability.

□ Recommended DC Operating Conditions(VCC=3.3±0.3V, TA=0~70°C)

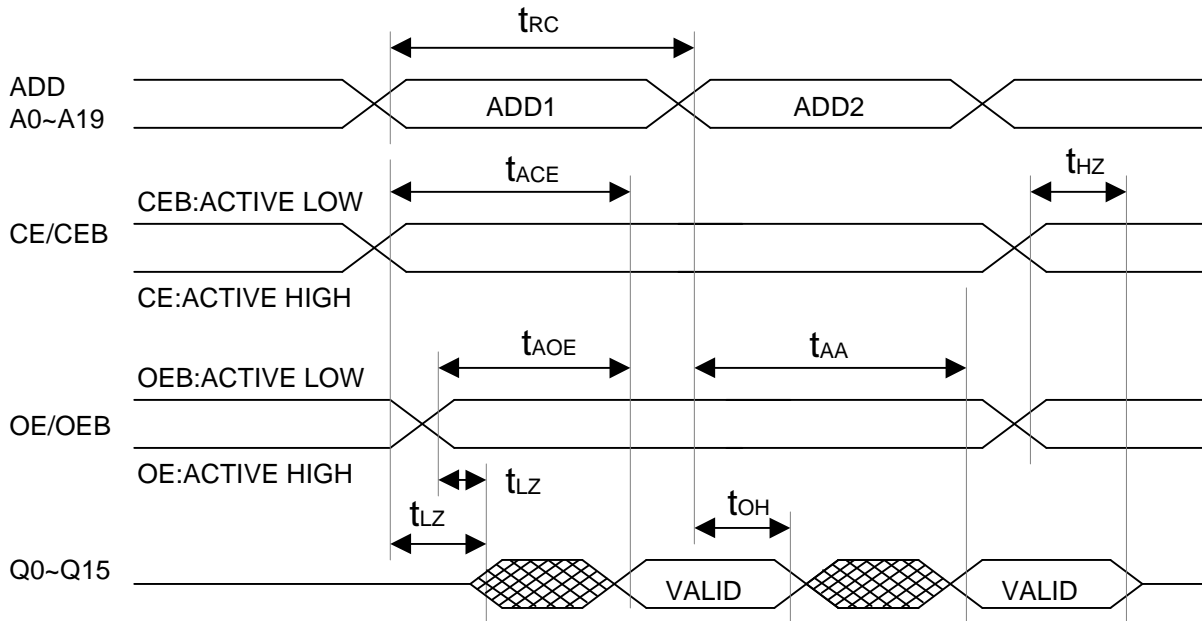
Symbol	Parameter	Min	Typ	Max	Unit
Vcc	Supply Voltage	3.0	3.3	3.6	V
Vss	Supply Voltage	0	0	0	V
VIH	Input High Voltage	2.2		Vcc+0.3	V
VIL	Input Low Voltage	-0.3		0.8	V

□ DC Electrical Characteristics(VCC=3.3±0.3V, TA=0~70 °C)

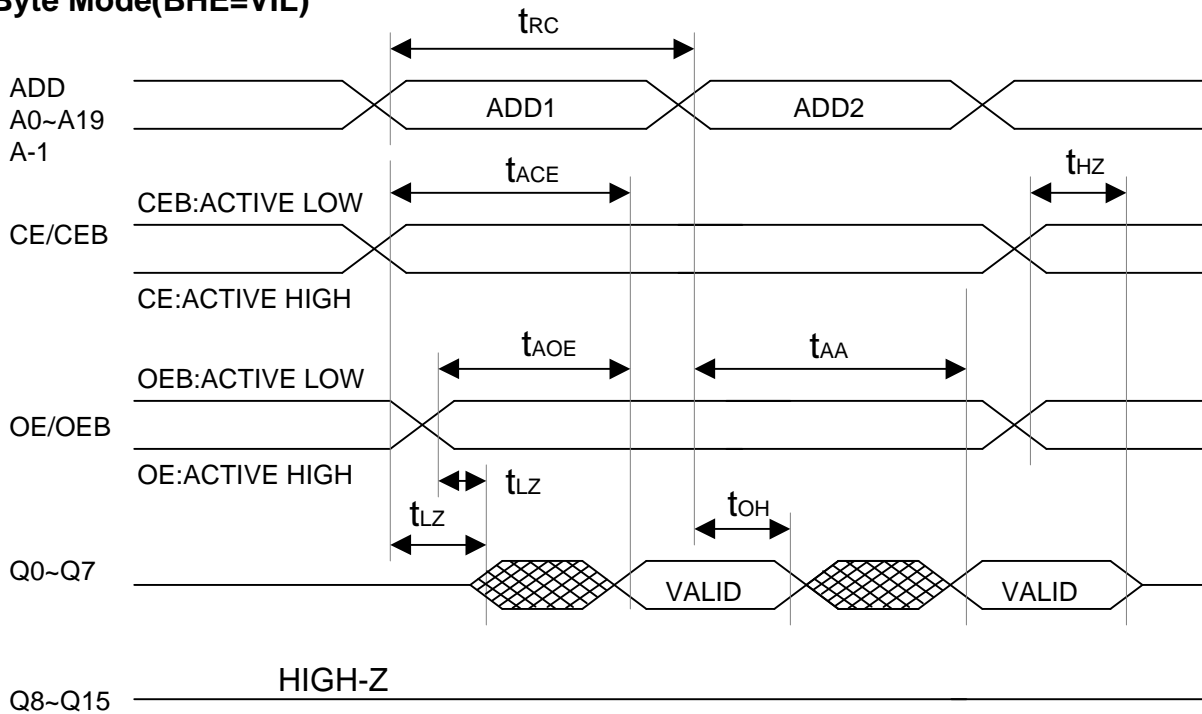
Symbol	Parameter	Condition	Min	Typ	Max	Unit
VOH	Output High Voltage	IOH=-0.4mA	2.4			V
VOL	Output Low Voltage	IOL=2.1mA			0.4	V
IIL	Input Leakage Current	VIN=0V to VCC			±10	uA
IOL	Output Leakage Current	VOUT=0V to VCC			±10	uA
ICC	Operating Supply Current (tRC=100ns)	CEB=OEB=VIL All Output Open			35	mA
ISB1	Standby Current(TTL)	CEB=VIH, all Output Open			500	uA
ISB2	Standby Current(CMOS)	CEB=VCC, all Output Open			50	uA

□ Timing Waveforms

Word Mode(BHE=VIH)



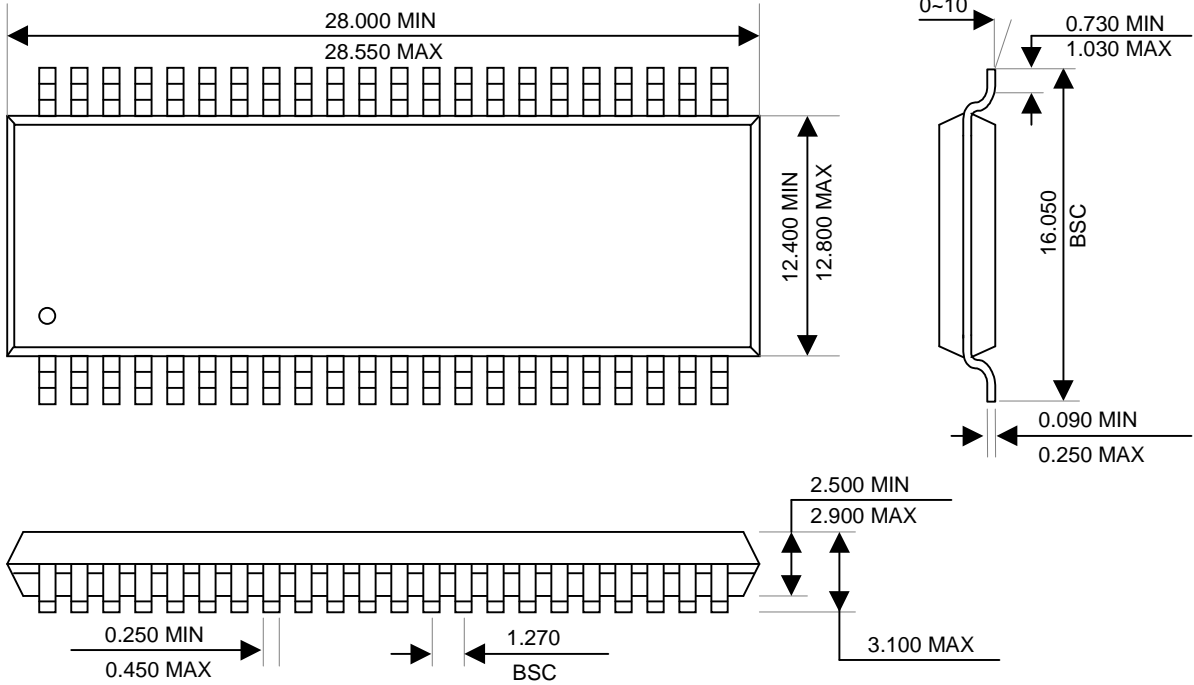
Byte Mode(BHE=VIL)



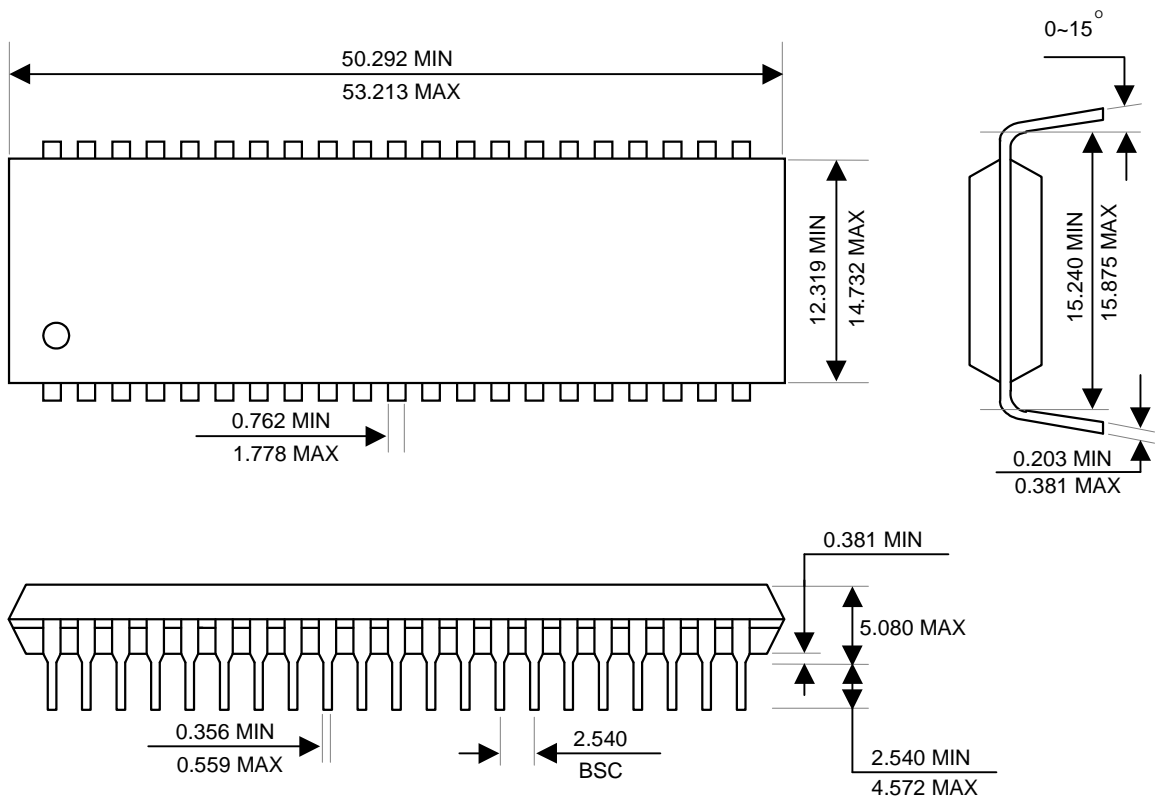
Package Dimension

Unit : mm

44SOP

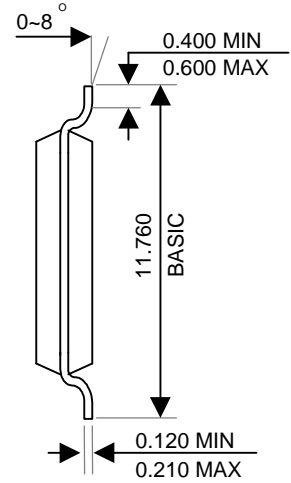
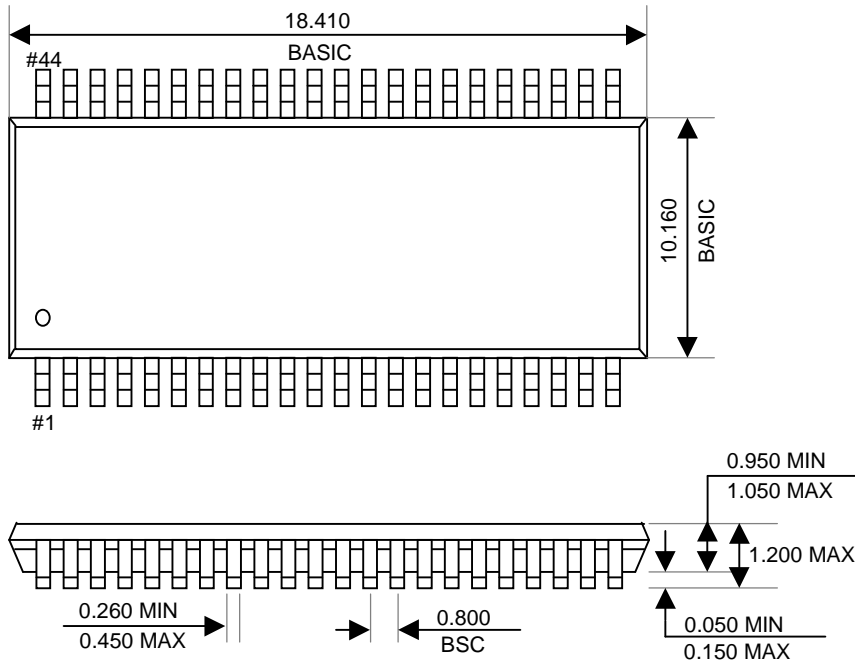


42DIP



Unit : mm

44TSOP-II



Unit : mm

48TSOP-I

