



3 STATES ENCODER

3 態 編 碼 IC

GENERAL DESCRIPTION 功能敘述

The M318E is a CMOS ASIC encoder. It will en-code 12 parallel data inputs (A0~A11) and serially \overline{TE} transmit them to the output when transmits enable (\overline{TE}) depressed. The address inputs are 3 states i.e. LOW (0) · OPEN (X) or HIGH(1). It will transmit 1 cycle each depressed.

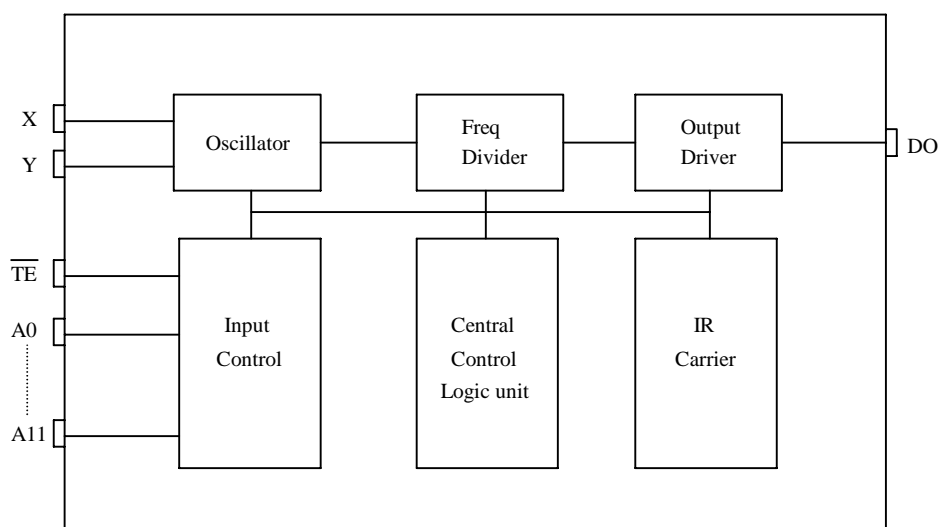
FEATURES 產品特長

- Same Rosc matched to the DECODER M318D/F
- $3^{18} = 387,420,489$ codes, "0" · "X" · "1" Tri-state
- Internal code A0~A7 1 0 1 1 1 0 A8~A11
- 1 cycle transmission each time
- Direct data transmit type : (Eliminating TE and diodes)
- M318E-H : switch to VDD

APPLICATIONS 產品應用

- Car/home alarm system, garage control etc..

BLOCK DIAGRAM 功能方塊圖



*All specs and applications shown above subject to change without prior notice.

(以上電路及規格僅供參考,本公司得逕行修正)



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ABSOLUTE MAXIMUM RATING

(TA=25°C)

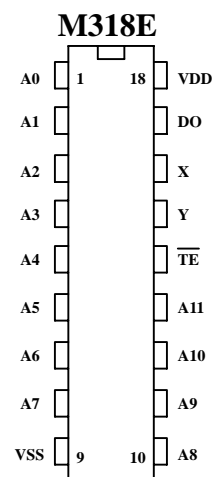
| Parameter | Rating | Unit |
|-----------------------|---------------------------|------|
| Supply Voltage | -0.3 to 15 | V |
| Input Voltage | -0.2~V _{DD} +0.2 | V |
| Operating Temperature | -50 to 125 | °C |
| Storage Temperature | 0 to 70 | °C |

ELECTRICAL CHARACTERISTICS

| Characteristics | Sym. | Min. | Typ. | Max. | Unit | Conditions |
|----------------------|-----------------|----------------------|-----------------|----------------------|------|---------------------------------------|
| Operating Voltage | V _{DD} | 2.4 | — | 15 | V | |
| Operating Current | I _{OP} | — | 0.1 | 1 | μA | No load |
| Quiescent Current | I _{SB} | — | 0.1 | 0.5 | mA | |
| Output Drive Current | I _O | — | 2 | — | mA | @V _{DS} =1.2V |
| Input Voltage | V _{IH} | V _{DD} -0.2 | V _{DD} | V _{DD} | V | |
| | V _{IL} | V _{SS} | V _{SS} | V _{SS} +0.2 | | |
| Oscillator Frequency | Fosc | — | 76 | — | KHz | External±30%, R _{osc} =240KΩ |

PIN DESCRIPTION

| No. | Name | Description |
|-------|-----------------|-----------------------|
| 1~8 | A0~A7 | Address inputs |
| 9 | VSS | Negative power supply |
| 10~13 | A8~A11 | Address inputs |
| 14 | \overline{TE} | Transmit enable |
| 15 | Y | Oscillator output |
| 16 | X | Oscillator input |
| 17 | DO | Data output |
| 18 | VDD | Positive power supply |





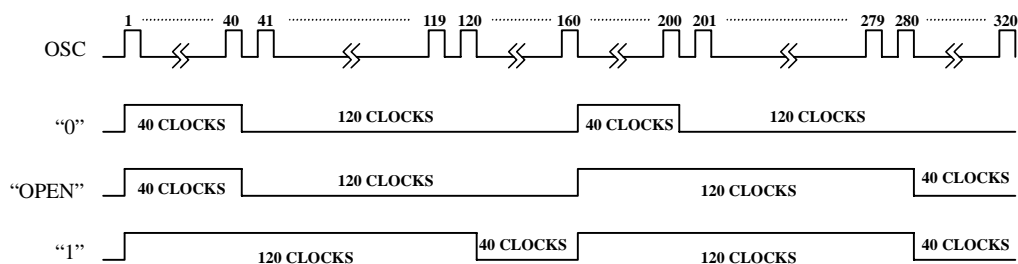
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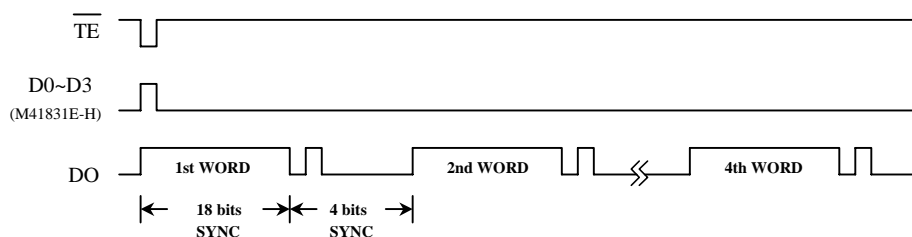
M318E

TIMING WAVEFORM

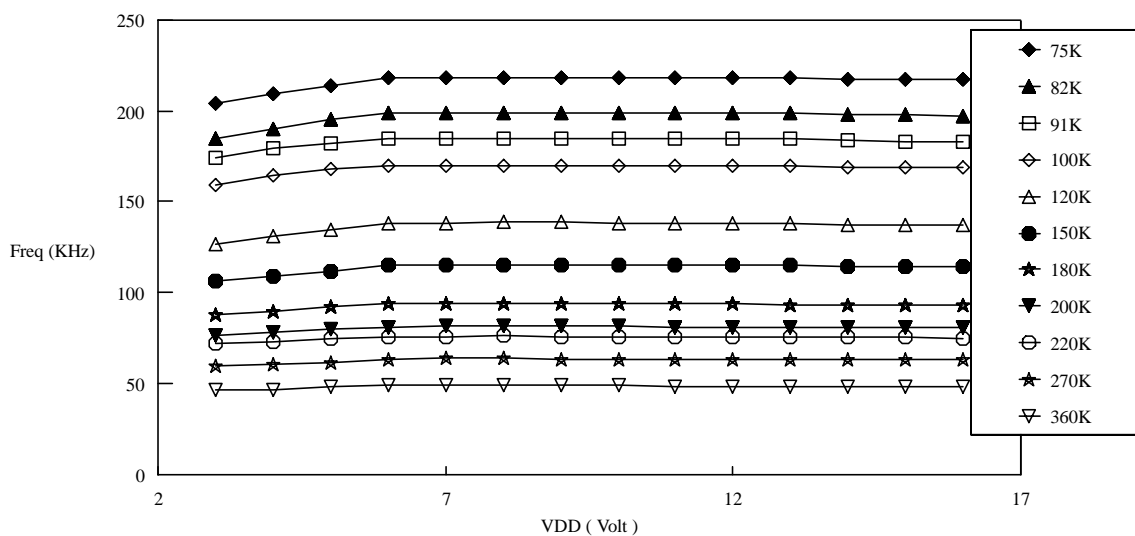
(1) Bit format



(2) TIMING DIAGRAM



M318E F-V curve

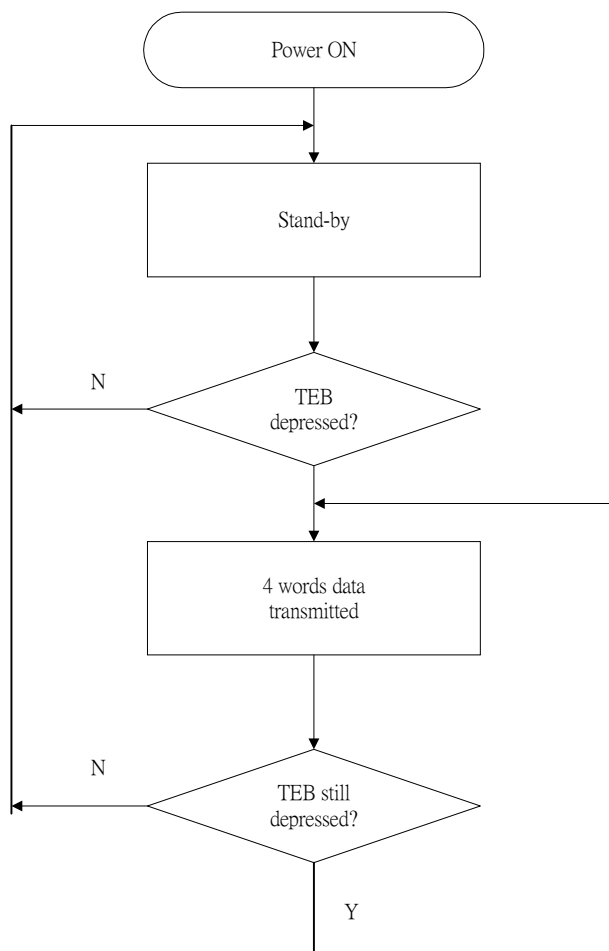




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OPERATING FLOWCHART

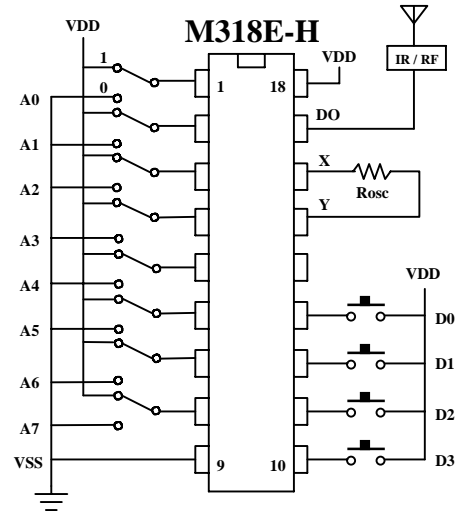
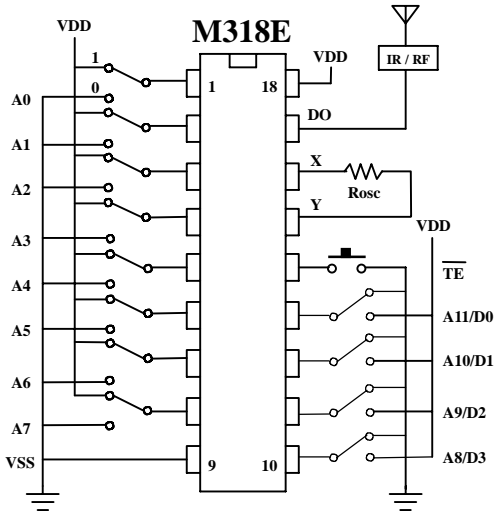




APPLICATION DIAGRAM 參考電路圖

(1) DIP PACKAGE

直接發射 (VDD)



(2) SOP PACKAGE

直接發射 (VDD)

