



4 PATTERN DISPLAY  
8 LED FLASH

閃爍圖形 IC

|           |  |
|-----------|--|
| LED FLASH |  |
| M1163     |  |

FEATURES 功能敘述

Operating voltage 2.4 ~ 5.5Volt.

Use external R,C oscillator.

LED output source current driver.

TG : Detector the DC motor speed via reed switch or Hall effect IC active low , motor counterclockwise.

Display 4 pattern sequentially , customer's display pattern can be programmed by change one MASK layer.

| P/N     | LIST      |
|---------|-----------|
| M1163-1 | Love Day  |
| M1163-2 | Holiday   |
| M1163-3 | Every Day |

APPLICATION 產品應用

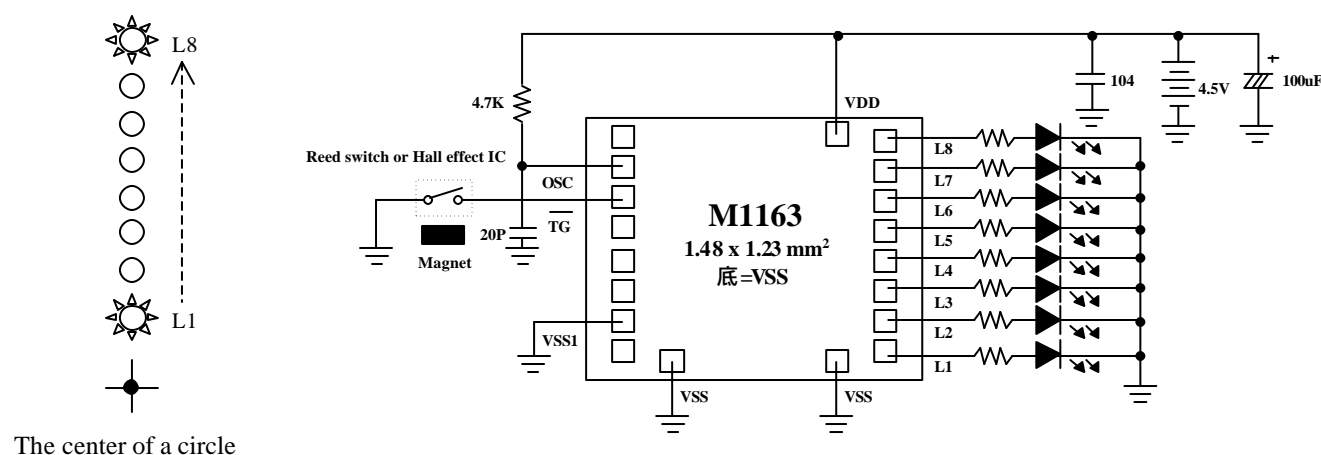
Blinking LED , Function indicator , Xmas decoration , Toys.

ELECTRICAL CHARACTERISTICS 電氣規格

( @  $V_{DD}=4.5V$  unless otherwise specified )

| Characteristics            | Sym.      | Min. | Typ. | Max. | Unit | REMARKS  |
|----------------------------|-----------|------|------|------|------|--|
| 工作電壓 Operating Voltage     | $V_{DD}$  | 2.4  | 4.5  | 5.5  | V    |  |
| 工作電流 Operating Current     | $I_{OP}$  |      | 0.1  | 0.5  | mA   | No load  |
| 推動電流 Driving Current       | $I_{Oh}$  |      | -10  |      | mA   | @ $V_{DS}=1.2V$  |
| 振盪頻率 Oscillator Frequency  | $F_{OSC}$ |      | 4.0  |      | MHz  | External OSC $\pm 10\%$ TOL. $R_{osc}=4.7K$ , $C=20pF$ |
| 工作溫度 Operating Temperature | Temp.     | 0    | 25   | 60   |      |  |

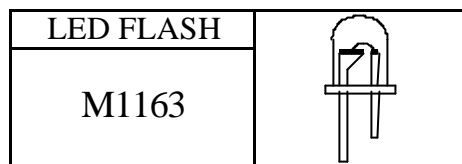
APPLICATION DIAGRAM 參考電路圖





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8 LED FLASH

閃爍圖形 IC



DISPLAY PATTERN

M1163-1 : Love Day

♥ SEXY LADY ♥  
✂ COME ON ✂  
♥ MISSING YOU ♥  
♥ I LOVE YOU ♥

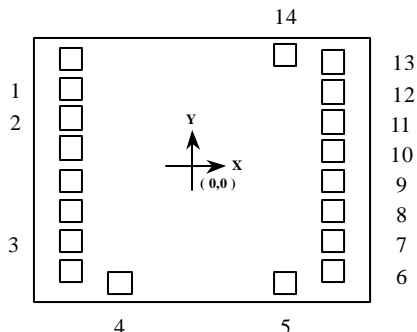
M1163-2 : Holiday

☼ MERRY X'MAS ☼  
☼ HAPPY TIME ☼  
HAPPY NEW YEAR  
GO! GO! GO!

M1163-3 : Every Day

HELLO!  
HOW ARE YOU  
GIVE ME FIVE  
THANK YOU

PAD ASSIGNMENT & POSITION



UNIT : um

| No. | NAME | X      | Y      | No. | NAME | X      | Y      |
|-----|------|--------|--------|-----|------|--------|--------|
| 1   | OSC1 | 530.4  | -332.7 | 8   | L3   | -530.4 | 165.7  |
| 2   | TG   | 530.4  | -212.7 | 9   | L4   | -530.4 | 33.3   |
| 3   | VSS1 | 530.4  | 292.2  | 10  | L5   | -530.4 | -86.7  |
| 4   | VSS  | 324.8  | 487.7  | 11  | L6   | -530.4 | -219.1 |
| 5   | VSS  | -329.7 | 487.7  | 12  | L7   | -530.4 | -339.1 |
| 6   | L1   | -530.4 | 418.1  | 13  | L8   | -530.4 | -471.5 |
| 7   | L2   | -530.4 | 285.7  | 14  | VDD  | -329.7 | -490.5 |

\* CHIP SIZE ~ 1.48 X 1.23 mm<sup>2</sup>

\* IC substrate should be connected to VSS in PCB (PCB 上 IC 必須接 VSS)

\*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 )