

หัวข้อโครงการ Security Home

รายชื่อสมาชิกกลุ่ม

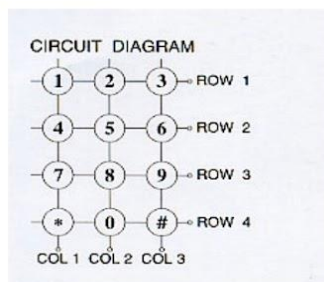
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Keypad 3*4

General Specification

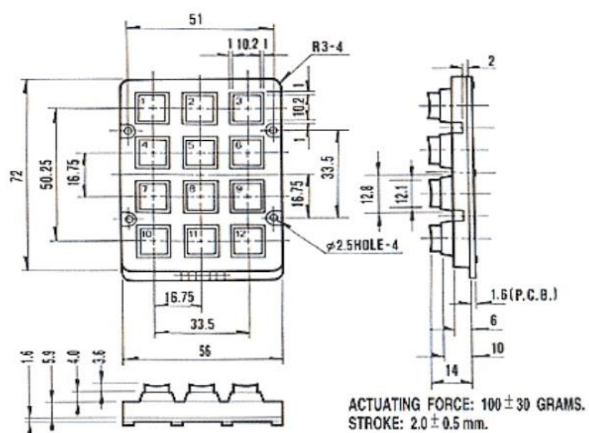
- Contact rating:20mA,24VDC
- Contact resistance:200 ohm max
- Life:1,000,000 cycles per key
- Operating Temperature: -20□ to +60□
- Storage Temperature: -40□ to +65□

Standard Matrix Circuit Diagram



AK-207

OUTPUT PIN NO.	SYMBOL
1	COL 2
2	ROW 1
3	COL 1
4	ROW 4
5	COL 3
6	ROW 3
7	ROW 2



Active buzzer

PRODUCT CONTENTS:

- 1 — Active buzzer (5V)

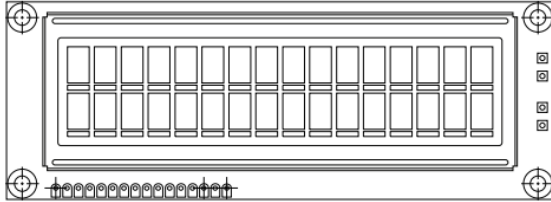
SPECIFICATIONS:

- Longer pin is the positive pin

Rated Voltage	5 V
Operating Voltage	4~8 V
Max Rated Current	≤32 mA
Min. Sound Output at 10cm	85 dB
Resonant Frequency	2300 ±300 Hz
Operating Temperature	-20°C to 45°C
Dimensions (Excluding Pins)	
Height	9.16 mm (0.36")
Diameter	11.78 mm (0.46")
Weight	1.6 g (0.057 oz)

LCD

16 x 2 Character LCD



FEATURES

- Type: Character
- Display format: 16 x 2 characters
- Built-in controller: ST 7066 (or equivalent)
- Duty cycle: 1/16
- 5 x 8 dots includes cursor
- + 5 V power supply (also available for + 3 V)
- LED can be driven by pin 1, pin 2, pin 15, pin 16 or A and K
- N.V. optional for + 3 V power supply
- Material categorization: For definitions of compliance please see www.vishay.com/doc?99912



RoHS
COMPLIANT

MECHANICAL DATA

ITEM	STANDARD VALUE	UNIT
Module Dimension	122.0 x 44.0	mm
Viewing Area	99.0 x 24.0	
Dot Size	0.92 x 1.10	
Dot Pitch	0.98 x 1.16	
Mounting Hole	115.0 x 37.0	
Character Size	4.84 x 9.66	

ABSOLUTE MAXIMUM RATINGS

ITEM	SYMBOL	STANDARD VALUE			UNIT
		MIN.	TYP.	MAX.	
Power Supply	V_{DD} to V_{SS}	- 0.3	-	7.0	V
Input Voltage	V_I	- 0.3	-	V_{DD}	

Note

- $V_{SS} = 0$ V, $V_{DD} = 5.0$ V

ELECTRICAL CHARACTERISTICS

ITEM	SYMBOL	CONDITION	STANDARD VALUE			UNIT
			MIN.	TYP.	MAX.	
Input Voltage	V_{DD}	$V_{DD} = + 5$ V	4.7	5.0	5.3	V
Supply Current	I_{DD}	$V_{DD} = + 5$ V	-	1.6	1.5	mA
Recommended LC Driving Voltage for Normal Temperature Version Module	V_{DD} to V_0	- 20 °C	-	-	5.2	V
		0 °C	-	-	4.5	
		25 °C	4.2	4.2	-	
		50 °C	3.8	-	-	
		70 °C	3.5	-	-	
LED Forward Voltage	V_F	25 °C	-	4.2	4.6	V
LED Forward Current - Array	I_F	25 °C	-	260	520	mA
EL Power Supply Current	I_{EL}	$V_{EL} = 110$ V _{AC} , 400 Hz	-	-	5.0	mA

