



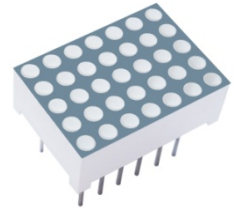
YDM-2057ARBWK

17.8mm(0.70inch), Deep Red, 5×7 Dot Matrix Display
Φ1.9mm 5×7 Dot Matrix LED Display

Technical Data Sheet

Features

- 0.70inch matrix height
- Dot size 1.9 mm
- High reliability
- Low power consumption
- A wide range of single LED colors is available
- X-Y stackable
- Easy mounting on PCB or sockets
- I.C. compatible
- RoHS compliant



Descriptions

- The YDM-2057ARBWK is a 17.8mm(0.70inch) matrix height 5x7 dot matrix display.
- The display provides excellent reliability in bright ambient light.
- The devices are available as either common anode or common cathode.
- The device is made with white diffused dots and gray surface.

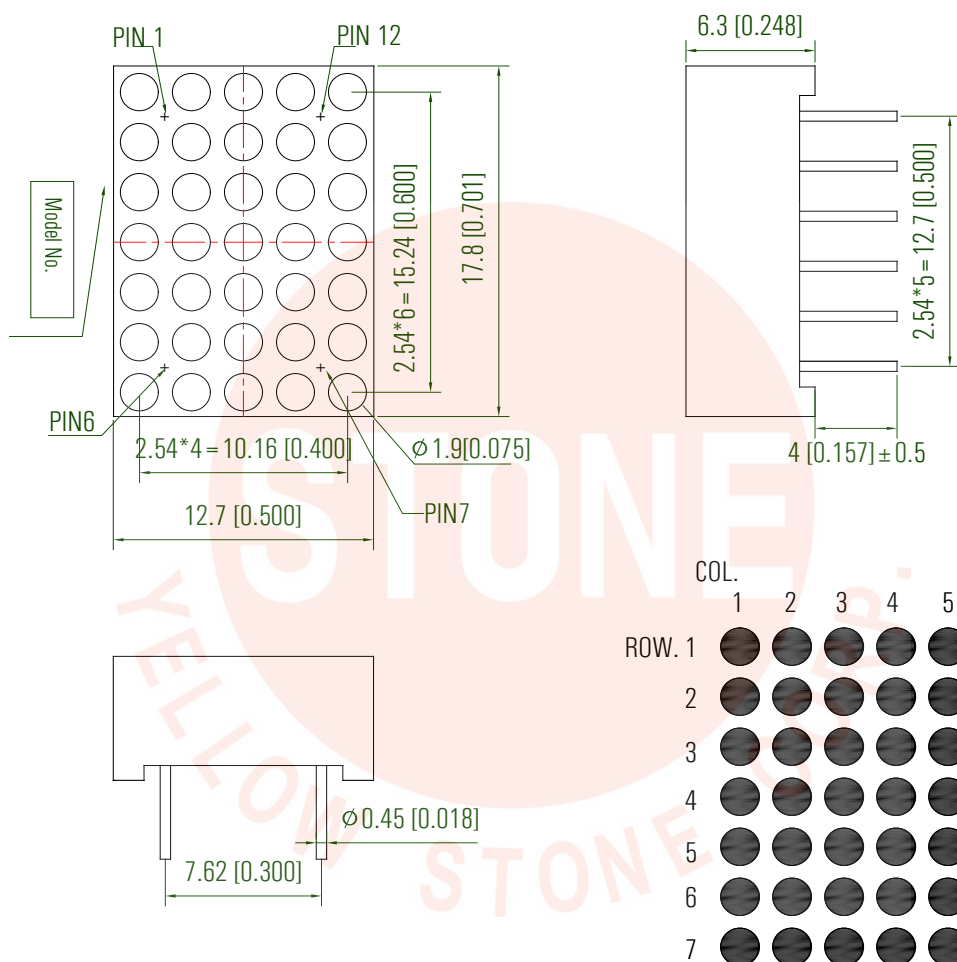
Applications

- Home and smart appliances
- Display time and digital combination
- Test and measurement equipment
- Industrial and instrumental applications
- Large Panel Indicators
- Information displays
- Control units

Device Selection Guide

Part No.	Emitting Color	Circuit Common
YDM-2057ARBWK	Deep Red	Common Row Anode

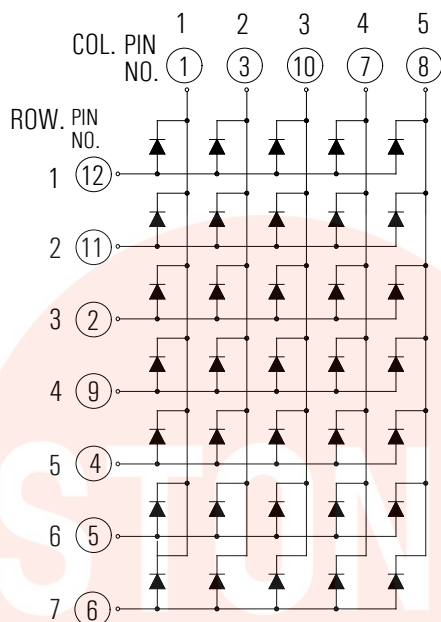
Package Dimension



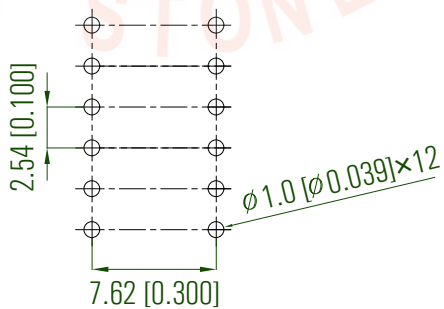
Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 mm (.010") unless otherwise noted.
3. The specifications, characteristics and technical data described in the datasheet are subject to change without prior notice.

Internal Circuit Diagram:



Recommended PCB Layout:



Absolute Maximum Ratings at Ta=25°C

Parameters	Symbol	Max	Unit
Power Dissipation Per chip	P_d	48	mW
Peak Forward Current Per Dot (1/10 Duty Cycle, 0.1ms pulse width)	I_{FP}	40	mA
Forward Current Per Dot	I_F	20	mA
Reverse Voltage Per chip	V_R	5	V
Operating Temperature Range	T_{opr}	-40°C to +80°C	
Storage Temperature Range	T_{stg}	-40°C to +85°C	
Soldering Temperature	T_{sld}	260°C for 5 Seconds	

Electrical Optical Characteristics at Ta=25°C

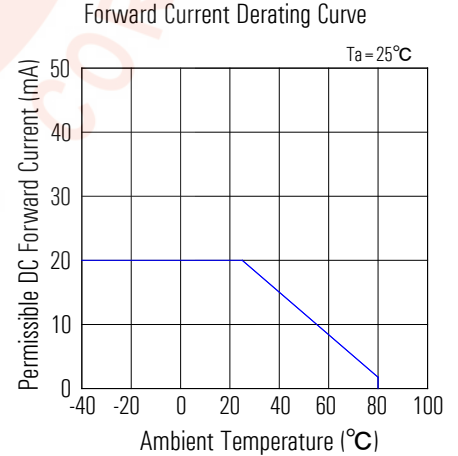
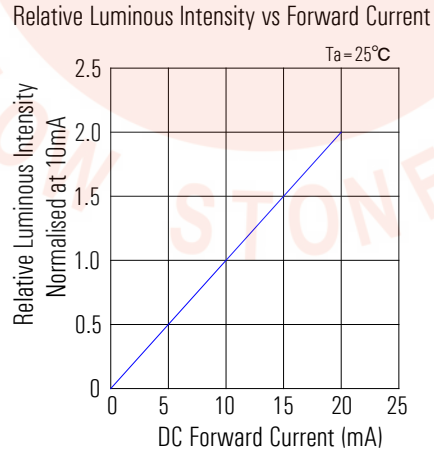
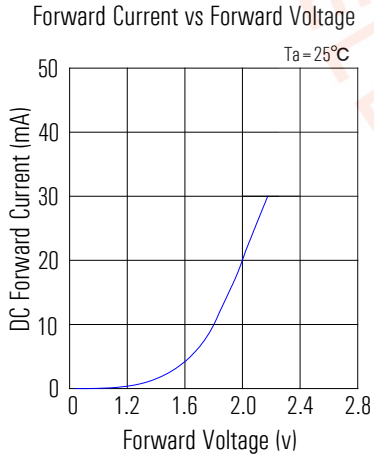
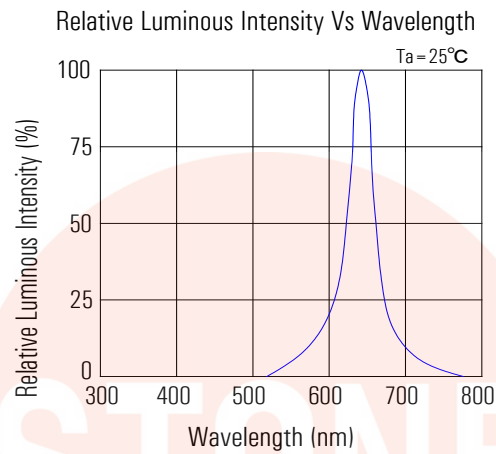
Parameters	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Average Luminous Intensity	I_v	4.8	9.5	---	mcd	IF=5mA (Note a)
		9.5	19.0	---	mcd	IF=10mA (Note a)
Luminous Intensity Matching Ratio	I_{v-m}	---	---	2:1		IF=20mA
Peak Emission Wavelength	λ_p	---	645	---	nm	IF=20mA
Dominant Wavelength	λ_d	---	630	---	nm	IF=20mA (Note b)
Spectral Line Half-Width	$\Delta\lambda$	---	20	---	nm	IF=20mA
Forward Voltage Per Dot	V_F	---	2.0	2.4	V	IF=20mA (Note c)
Reverse Current Per Dot	I_R	---	---	50	μA	VR=5V

Notes:

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
Tolerance of Luminous Intensity: $\pm 10\%$.
- The dominant wavelength (λ_d) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- Tolerance of Forward Voltage: $\pm 0.1V$.



Typical Electrical/Optical Characteristics Curves
(25°C Ambient Temperature Unless Otherwise)



Packing & Label Specifications

