

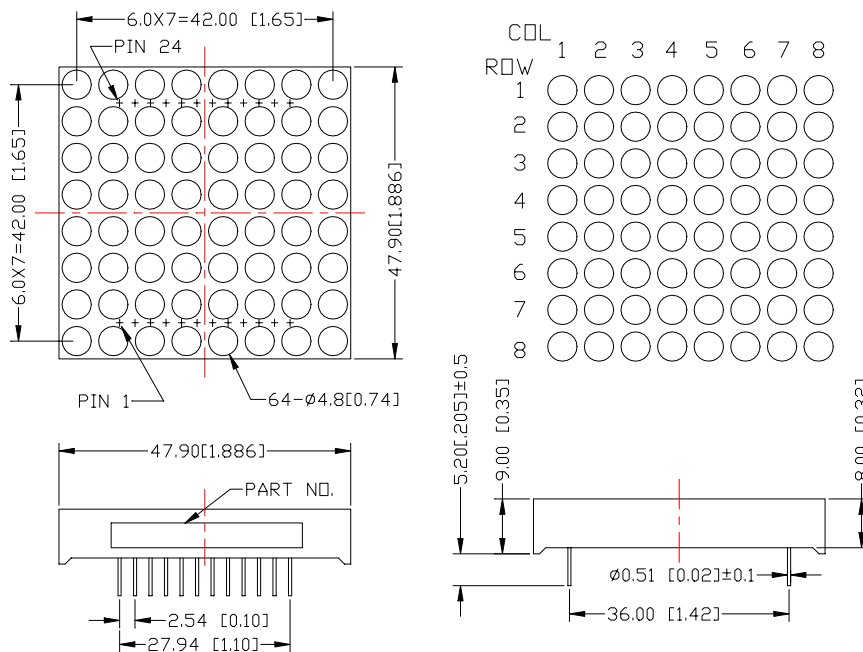
### FEATURES

- 1.9inch (47.9mm) Matrix height
- Dual colors — Bright Green + Orange/Bright Green + Red
- Flat package and light weight
- Easy assembly
- High quality and low cost
- High reliable and intensity
- Low power requirement

### DESCRIPTION :

- 8 x 8 dot matrix LED displays
- Ø4.8mm dot and pitch 6.0mm
- Black face or gray face and milky dots

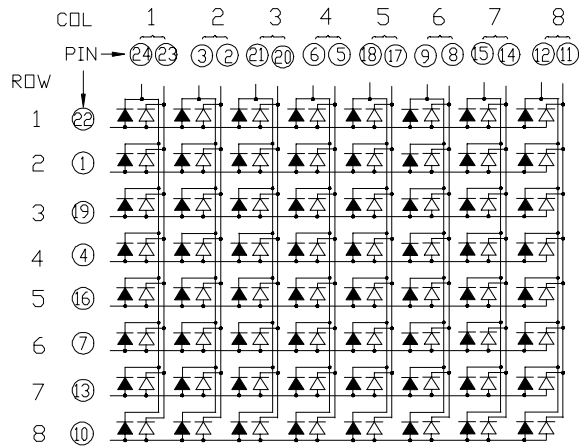
### PACKAGE DIMENSIONS



NOTES: All dimensions are in millimeters (inches) tolerance are ± 0.25mm (0.01inch) unless otherwise noted;

## CIRCUIT DIAGRAM

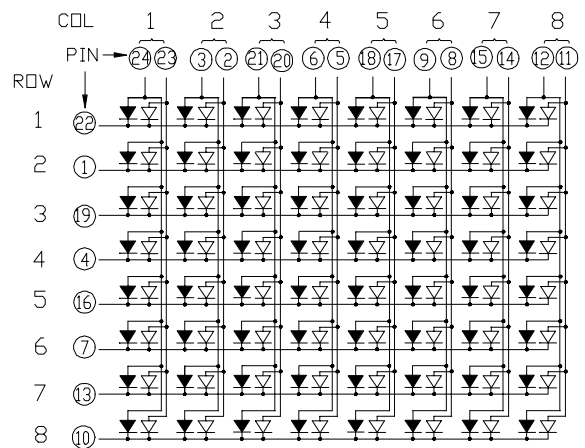
### A. WCN-8819D1/D3-DA01



The Sign "  $\blacktriangleleft$  "Represent for Orange chips /SH. Red Chips.

The Sign "  $\blacktriangleleft$  "Represent for Green chips.

### B. WCN-8819D1/D3-DC01



The Sign "  $\blacktriangleleft$  "Represent for Orange chips /SH. Red Chips.

The Sign "  $\blacktriangleleft$  "Represent for Green chips.

## ABSOLUTE MAXIMUM RATINGS AT $T_a=25^\circ\text{C}$

PARAMETER	Bright Green	Orange	SH. Red	UNIT
Maximal Power Dissipation (When completely Lighting) Per Dot	52	52	40	mW
Maximal Forward Current (When completely Lighting) Per Dot	20	20	20	mA
Derating Linear From $25^\circ\text{C}$ Per Dot	0.166	0.166	0.166	mA/ $^\circ\text{C}$
Peak Forward Current Per Dot	80	80	80	mA
Reverse Voltage Per Dot	5			V
Operation Temperature Range	-35~+85			$^\circ\text{C}$
Storage Temperature Range.	-35~+85			$^\circ\text{C}$

NOTES:  $T_a=25^\circ\text{C}$   $I_{FP}=1/8\text{Duty } 10\text{KHZ}$

**OPTOELECTRIC CHARACTERISTICS  $T_a=25^{\circ}\text{C}$**

PARAMETER	SYMBOL	TEST CONDITIONS	PART NO.	RATING			UNIT
				MIN.	TYP.	MAX.	
Forward Voltage Per Dot	$V_F$	$I_F=20\text{mA}$	Bright Green	—	2.25	2.6	V
			Orange	—	2.05	2.6	
			SH. Red	—	1.8	2.0	
Reverse Current Per Dot	$I_R$	$V_R=5\text{V}$	Bright Green, SH. Red, Orange	—	—	100	$\mu\text{A}$
Luminance	L	$I_{FP}=40\text{mA}$ 1/8 Duty	Bright Green	—	3.5	—	$\text{mcd}^2$
			Orange	—	2.5	—	
			SH. Red	—	5.0	—	
Peak Emission Wavelength Per Dot	$\lambda_P$	$I_F=20\text{mA}$	Bright Green	—	568	—	nm
			Orange	—	632	—	
			SH. Red	—	660	—	
Dominant Wavelength Per Dot	$\lambda_D$	$I_F=20\text{mA}$	Bright Green	—	573	—	nm
			Orange	—	622	—	
			SH. Red	—	643	—	
Spectral Line Wave Length Per Dot	$\Delta\lambda$	$I_F=20\text{mA}$	Bright Green	—	30	—	nm
			Orange	—	35	—	
			SH. Red	—	20	—	
Luminous Intensity Matching Ratio (Dot To Dot)	$I_{v-m}$	$I_{FP}=40\text{mA}$ 1/8 Duty	Bright Green. SH. Red. Orange			2:1	

**SOLDERING CONDITIONS** : Soldering Temp.  $\leq +260^{\circ}\text{C}$ ; Soldering Time  $\leq 3\text{sec}$   
(at 2mm Distance from the Case of Reflector Edge)