

### FEATURES

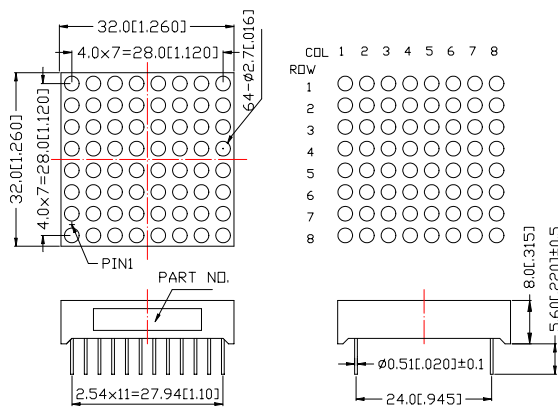
- 1.3inch (32.0mm) Matrix height
- Dual colors — Bright Green + Orange/Bright Green +Red
- Flat package and light weight
- Easy assembly
- High quality and low cost
- High reliable and intensity
- Low power requirement

### DESCRIPTION :

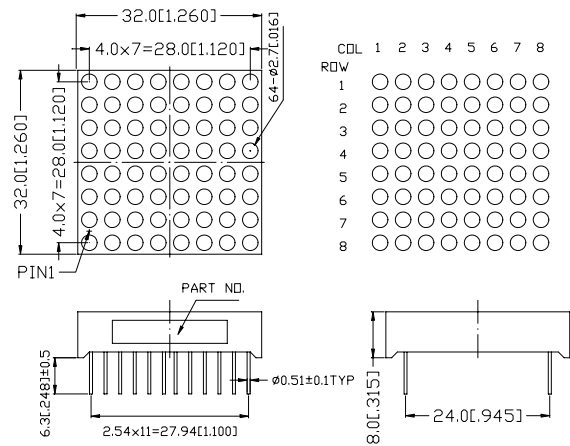
- 8 x 8 dot matrix LED displays
- Ø2.7mm dot and pitch 4.0mm
- Black face or gray face and milky dots

### PACKAGE DIMENSIONS

A. WCN-8813D1/D3-DA01/DC01



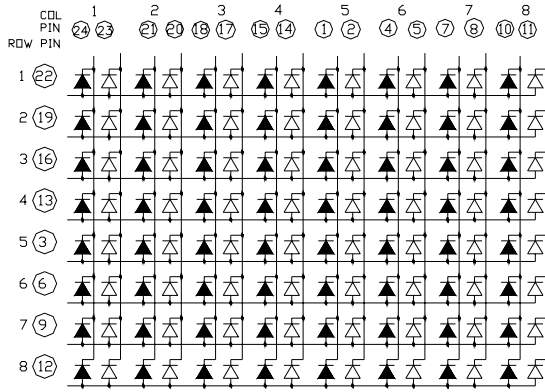
B. WCN-8813D1/D3-DA02/DC02



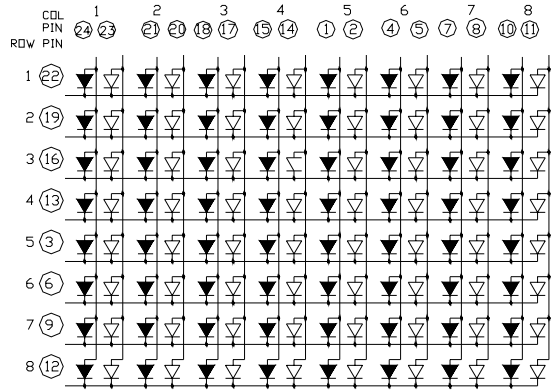
NOTES: All dimensions are in millimeters (inches) tolerance are ± 0.25mm (0.01inch) unless otherwise noted

## CIRCUIT DIAGRAM

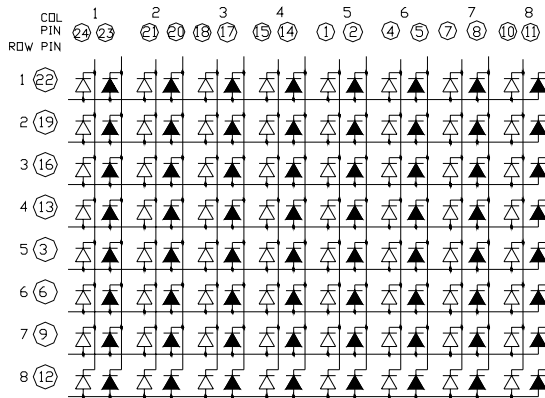
A. WCN-8813D1/D3-DA01



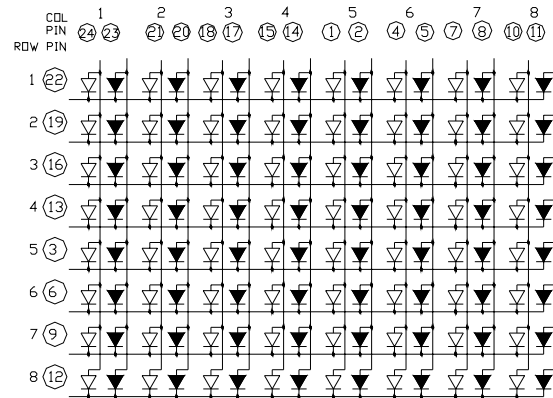
B. WCN-8813D1/D3-DC01



C. WCN-8813D1/D3-DA02



D. WCN-8813D1/D3-DC02



The Sign " $\blacktriangle$ " Represent for Red Chips  
The Sign " $\blacktriangledown$ " Represent for Yellow 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:  $T_a=25^\circ\text{C}$   $I_{FP}=1/8$ Duty 10KHZ

**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	1.8	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	—	2.5	—	mcd
			Orange	—	1.5	—	
			SH. Red	—	4.0	—	
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)