



DM9-4420 SERIES

Ø 9.0mm 4× 4 SINGLE COLOR DOT MATRIX LED DISPLAYS

FEATURES

- 2.0inch (50.60mm) Matrix height
- Choice of three colors — Bright Green /Orange / SH. Red
- Flat package and light weight
- Easy assembly
- High quality and low cost
- High reliable and intensity
- Low power requirement

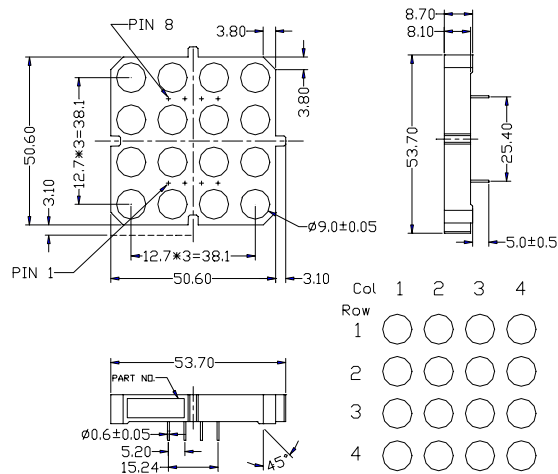
DESCRIPTION :

- 4 x 4 dot matrix displays
- φ 9.0mm dot and pitch 12.7mm
- Black face or gray face and water clear dots

DEVICES

PART NO.			DESCRIPTION	CIRCUIT DIAGRAM
Bright Green	Orange	DH. Red		
DM9-4420GU-DA01	DM9-4420HO-DA01	DM9-4420SR-DA01	Common Anode	A
DM9-4420GU-DC01	DM9-4420HO-DC01	DM9-4420SR-DC01	Common Cathode	B

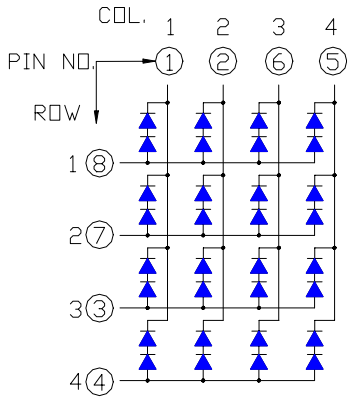
PACKAGE DIMENSIONS



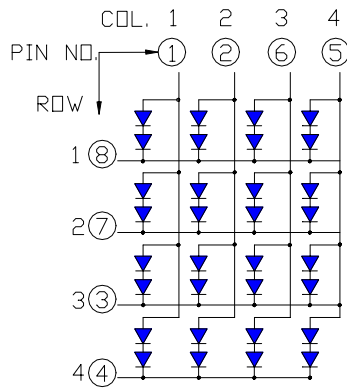
NOTES: All dimensions are in millimeters (inches) tolerance are ± 0.25mm (0.01inch) unless otherwise noted.

CIRCUIT DIAGRAM

A. DM9-4420GU/HO/SR-DA01



B. DM9-4420GU/HO/SR-DC01



PIN CONNECTION

PIN NO.	CONNECTION	PIN NO.	CONNECTION
1	Column 1	5	Column 4
2	Column 2	6	Column 3
3	Row 3	7	Row 2
4	Row 4	8	Row 1

ABSOLUTE MAXIMUM RATINGS AT T_a=25°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	15	15	15	mA
Derating Linear From 25°C Per Dot	0.166	0.166	0.166	mA/°C
Peak Forward Current Per Dot	80	80	80	mA
Reverse Voltage Per Dot	5			V
Operation Temperature Range	-35 ~+85			°C
Storage Temperature Range.	-35 ~+85			°C

NOTES: T_a=25°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	3.6	4.5	5.2	V
			Orange	—	4.1	5.2	
			SH. Red	—	3.6	4.0	
Reverse Current Per Dot	I_R	$V_R=5\text{V}$	Bright Green SH. Red, Orange	—	—	100	μA
Luminous Intensity Per Dot	I_V	$I_{FP}=40\text{mA}$ 1/8 Duty	Bright Green	3.0	5.0	—	mcd
			Orange	1.46	3.0	—	
			SH. Red	6.0	10.0	—	
Peak Emission Wavelength Per Dot	λ_p	$I_F=20\text{mA}$	Bright Green	—	568	—	nm
			Orange	—	632	—	
			SH. Red	—	660	—	
Dominant Wavelength Per Dot	λ_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)	lv-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)