



## 1.90" (47.80mm) $\Phi$ 4.80mm 8\*8 Single Color Dot Matrix Displays

### Features:

- \*Ultra dot intensity
- \*Wide viewing angle
- \*Range of colors
- \*Black face White dot
- \*RoHS compliant

### Available option:

- \*Alternative face and dot color
- \*Cropped terminal pins
- \*Available emitting color
- \*Low current version

### Electro/Optical Characteristics If=20mA Ta=25°C

Part Number Common Cathode	Part Number Common Anode	Emitting Color	Peak Wavelength	Forward Voltage Vf/Dot		Luminous Intensity Iv/Dot	
				Typ.	Max.	Min.	Typ.
NFM-19881AUHR-11	NFM-19881BUHR-11	AlGaInP/GaAs Ultra Red	640	2.00	2.50	40.00	60.00
NFM-19881AUE-11	NFM-19881BUE-11	AlGaInP/GaAs Ultra Orange	632	2.00	2.50	40.00	60.00
NFM-19881AYO-11	NFM-19881BYO-11	AlGaInP/GaAs Ultra Amber	605	2.00	2.50	40.00	60.00
NFM-19881AUY-11	NFM-19881BUY-11	AlGaInP/GaAs Ultra Yellow	590	2.00	2.50	40.00	60.00
NFM-19881AUG-11	NFM-19881BUG-11	AlGaInP/GaAs Ultra Green	574	2.10	2.50	25.00	40.00
NFM-19881APG-11	NFM-19881BPG-11	InGaN/SiC Pure Green	525	3.30	3.80	150.00	200.00
NFM-19881AUB-11	NFM-19881BUB-11	InGaN/SiC Ultra Blue	470	3.30	3.80	40.00	100.00
NFM-19881AUW-11	NFM-19881BUW-11	InGaN/SiC Ultra White	X-0.31/Y-0.31	3.30	3.80	200.00	500.00
Units			nm	V		mcd	

### Maximum Ratings Ta=25°C (Derate above 25°C)

Characteristic	Test Condition	Symbol	UHR	UE	YO	UY	UG	PG	UB	UW	Units
Pulse Forward Current Per Dot	1/10 duty cycle 0.1ms Pulse width	I <sub>FP</sub>	100	100	100	100	100	100	100	100	mA
DC Forward Current Per Dot		I <sub>F</sub>	30	30	30	30	30	30	30	30	mA
Reverse Current Per Dot	V <sub>R</sub> =5V	I <sub>R</sub>	10	10	10	10	10	10	10	10	μA
Power Dissipation		P <sub>D</sub>	65*64	65*64	65*64	65*64	75*64	110*64	120*64	120*64	mW
Operating Temperature		T <sub>OPR</sub>	-40 to +80								°C
Storage Temperature		T <sub>TSG</sub>	-40 to +85								°C
Lead soldering temperature	1.60mm from body maximum 3 seconds		260								°C

Checked

Chen N.H.

Approved

Jason Chen

Date

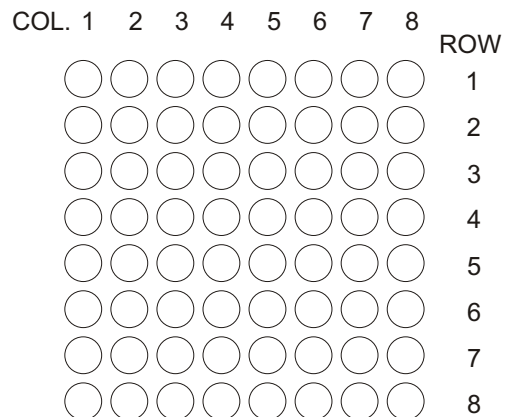
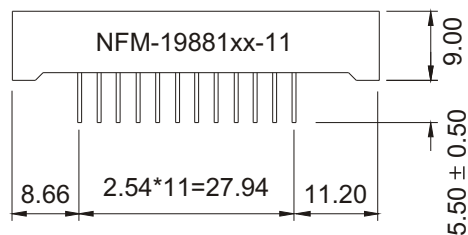
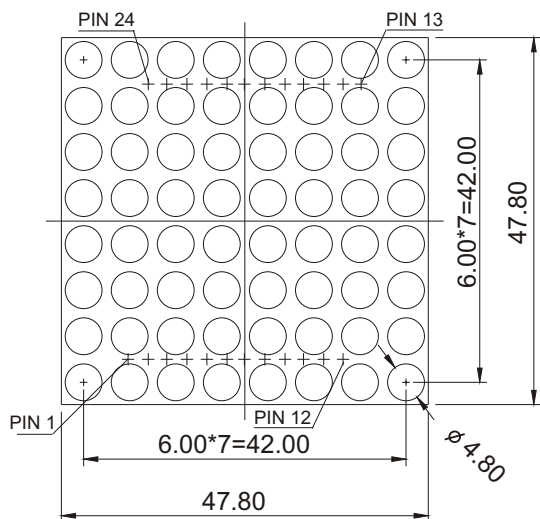
Jun/12/2010

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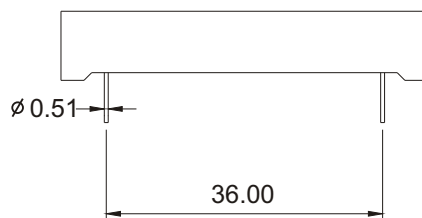
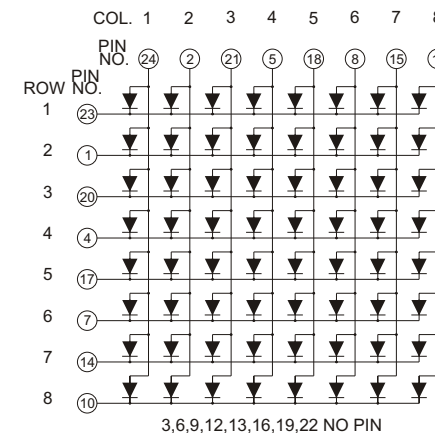
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## PACKAGE DIMENSION

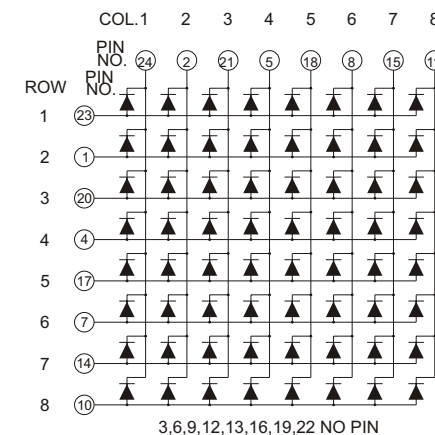


## INTERNAL CIRCUIT DIAGRAM

Row Cathode  
Column Anode  
NFM-19881Ax



Row Anode  
Column Cathode  
NFM-19881Bx



Tolerance  $\pm 0.25$ mm unless stated