



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

### Features:

- \*High 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 $I_f=20mA$ $T_a=25^\circ C$

Part Number Row Cathode Column Anode	Part Number Row Anode Column Cathode	Emitting Color	Peak Wavelength	Forward Voltage $V_F$ /Dot		Luminous Intensity $I_v$ /Dot	
				Typ.	Max.	Min.	Typ.
NFM-19881CH-11	NFM-19881DH-11	GaP/GaP Red	700	2.25	2.50	0.40	0.80
NFM-19881CS-11	NFM-19881DS-11	GaAlAs/GaAs SH Hi-Red	660	1.80	2.20	8.00	12.00
NFM-19881CD-11	NFM-19881DD-11	GaAlAs/GaAs DH Super Red	660	1.80	2.20	22.00	28.00
NFM-19881CE-11	NFM-19881DE-11	GaAsP/GaP Orange	632	2.10	2.50	8.00	12.00
NFM-19881CY-11	NFM-19881DY-11	GaAsP/GaP Yellow	585	2.10	2.50	4.00	7.00
NFM-19881CG-11	NFM-19881DG-11	GaP/GaP Green	568	2.20	2.50	7.00	11.00
Units			nm	V		mcd	

### Maximum Ratings $T_a=25^\circ C$ (Derate above $25^\circ C$ )

Characteristic	Test Condition	Symbol	H	S	D	E	Y	G	Units
Pulse Forward Current Per Dot	1/10duty cycle 0.1ms Pulse width	$I_{FP}$	50	100	100	100	100	100	mA
DC Forward Current Per Dot		$I_F$	15	25	25	30	30	30	mA
Reverse Current Per Dot	$V_R=5V$	$I_R$	10	10	10	10	10	10	$\mu A$
Power Dissipation		$P_D$	40*64	60*64	60*64	80*64	80*64	80*64	mW
Operating Temperature		$T_{OPR}$	-40 to +80						$^\circ C$
Storage Temperature		$T_{TSG}$	-40 to +85						$^\circ C$
Lead soldering temperature	1.60mm from body maximum 3 seconds		260						$^\circ C$

Checked

Chen N.H.

Approved

Jason Chen

Date

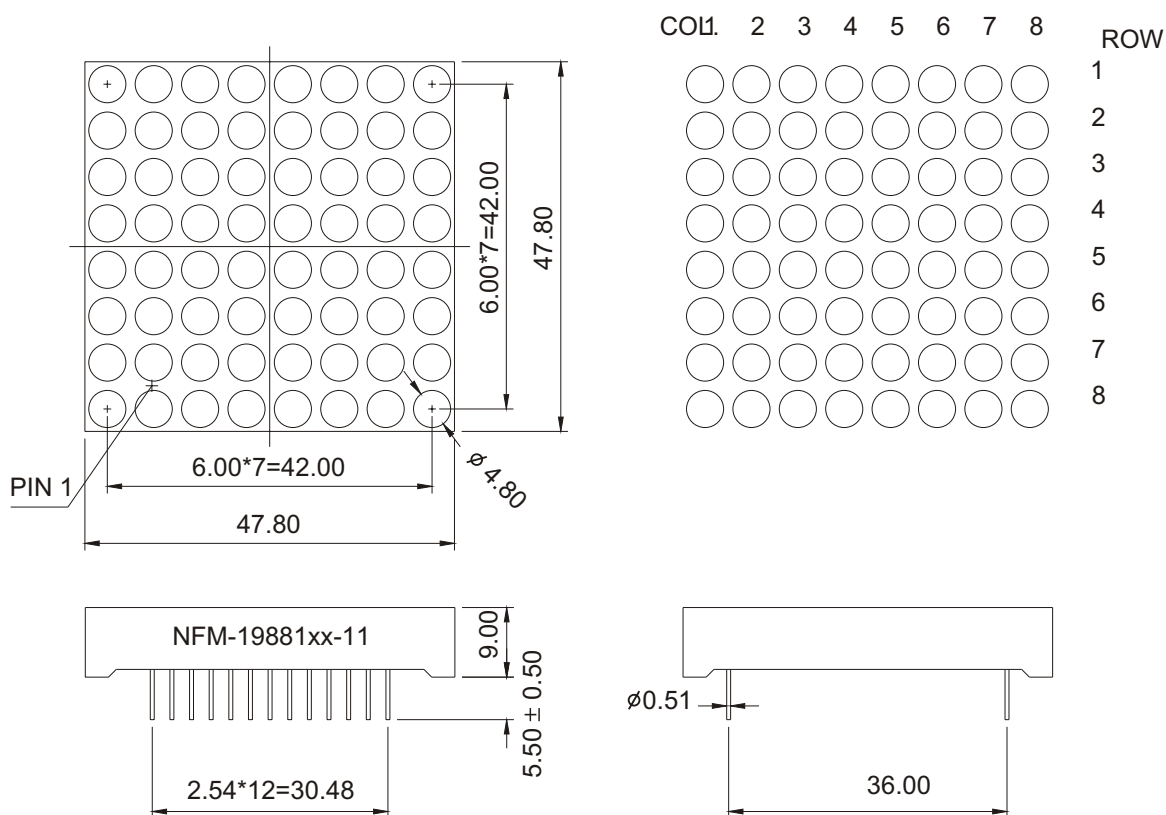
Mar/16/2007

PAGE 1 / 2



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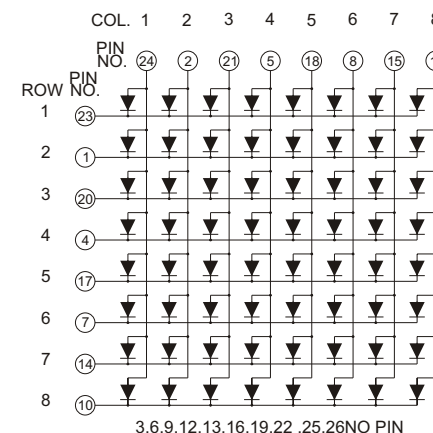
## PACKAGE DIMENSION



Tolerance  $\pm$ 0.25mm unless stated

## INTERNAL CIRCUIT DIAGRAM

Row Cathode  
Column Anode  
NFM-19881Cx



Row Anode  
Column Cathode  
NFM-19881Dx

