

User's Guide

D0103MT-20-0108

VFD

(Vacuum Fluorescent Display Character Module)

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Vacuum Fluorescent Display Specification

PART NUMBER: **D0103MT-20-0108**

FEATURES: 3 Digits, 7-Segment, with fixed segments: Clock – High Brightness

APPLICATION: Character Display (7-Segment)

RATINGS: Below

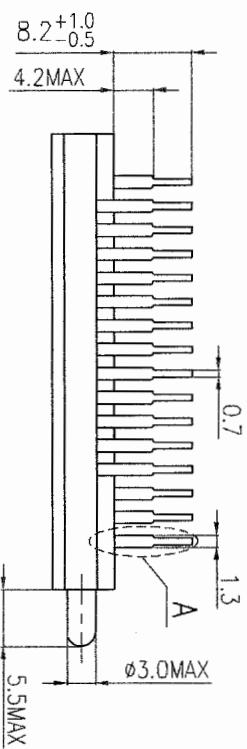
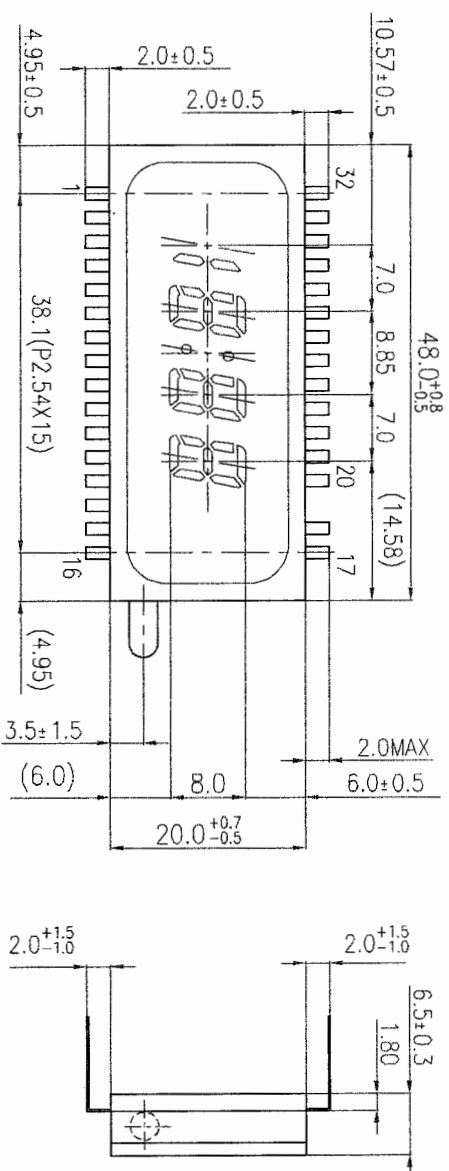
Outer Dimensions	Panel Length	P.L.	48.0	mm	
	Panel Height	P.H.	20.0	mm	
	Panel Thickness	P.T.	6.5	mm	
Leads	Lead Pitch	L.P.	2.54	mm	
	Lead Out	-	DIL		
Character Size	Character Height	C.H.	8.0	mm	
	Character Width	C.W.	4.4	mm	
Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	E _f	1.35	1.50	1.65	Vdc
Peak Grid Voltage	e _c	8.0	12.0	16.0	Vdc
Peak Anode Voltage	e _b	8.0	12.0	16.0	Vdc
Duty Cycle	D _u	-	1	-	-
-	-	-	-	-	-
Life to ½ brightness	-	35,000	-	-	Hrs
Operating Temperature	T _{opr}	-40	-	+ 85	°C
Storage Temperature	T _{stg}	-50	-	+ 95	°C
Color of Illumination	Green				

**Electrical
Characteristics**

Item	Symbol	Test Condition	Min.	Typical	Max.	Unit
Filament Current	I _f -	E _f = 1.5 V _{dc} e _b = e _c = 0	90.0 -	100.0 -	110.0 -	mA _{dc} -
Anode Current	i _b /dig - - - -	E _f = 1.5 V _{dc} e _b = 12.0 V _{dc} e _c = 12.0 V _{dc} All segments Lit	- - - - -	1.3 0.5 0.3 - -	2.6 1.0 0.6 - -	mA _{dc} mA _{dc} mA _{dc} - -
Grid Current	i _c - - - -		- - - - -	5.0 - - - -	10.0 - - - -	mA _{dc} - - - -
Luminance	L(G) -		1070 (400)	2060 (600)	-	cd/m ² fL
Luminance Ratio	L _{min} /L _{max}		-	-	2	-
Grid Cut-off Voltage	E _{cco}		-	-	-	V _{dc}
Anode Cut-off Voltage	E _{bco}	E _f = 1.5 V _{dc} e _c = 12.0 V _{dc} D _u = 1	0	-	-	V _{dc}

Dynamic State

附图1: 外形图 Outline Drawing (Unit:mm)

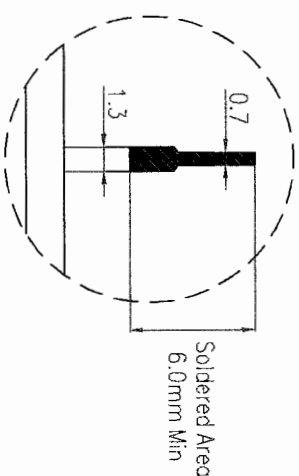


端子序号 (PIN NO.)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
连接 (CONNECTION)	F(-)	G	4b 4c	3g	3e	3d	3c	2g	2e	2c	1g	1e	1d	1c	G	F(+)	NX
端子序号 (PIN NO.)	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32		
连接 (CONNECTION)	NX	NP	1b	1a	1f	2b	2a 2d	2f	col	G	3b	3a	3f	G	NX		

注: $F(+)$, $F(-)$: 灯丝 (Filament) G: 栅极 (Grid)

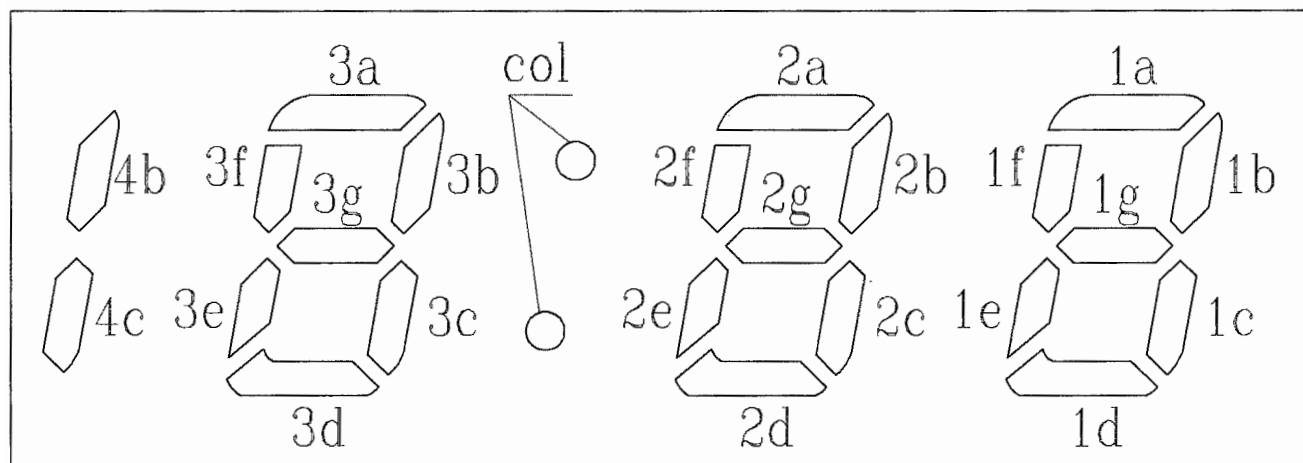
NP: 无引出脚(No pin)

NX:无外接脚 (No extend pin)



附图2：显示内容和栅网分割 Display Pattern And Grid Assignment

G



显示颜色 Colour of illumination:

绿色 Green ($X=0.250$ $Y=0.439$): 所有图形 All Patterns

