

User's Guide

D0104MT-24-0503

VFD- RoHS Compliant

(Vacuum Fluorescent Display Module)

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Vacuum Fluorescent Display Specification

PART NUMBER: D0104MT-24-0503

FEATURES: 4 Digits, 7-Segmented, Clock

APPLICATION: Character Display (*7-Segmented*)

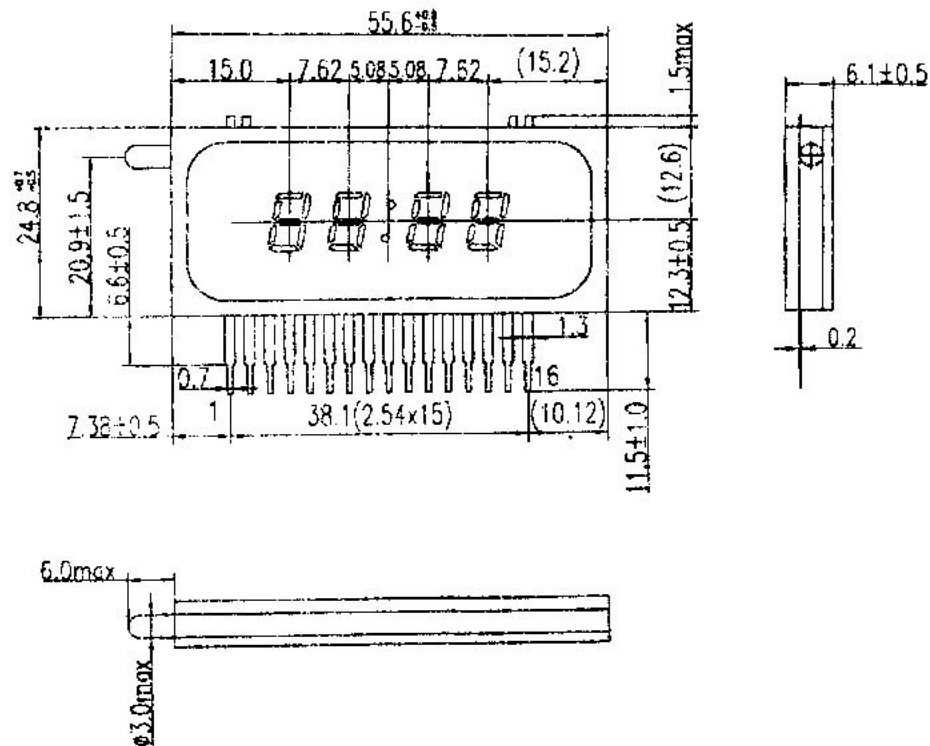
RATINGS: Below

Outer Dimensions	Panel Length	P.L.	55.6	mm	
	Panel Height	P.H.	24.8	mm	
	Panel Thickness	P.T.	6.1	mm	
Leads	Lead Pitch	L.P.	2.54	mm	
	Lead Out	-	SIL		
Character Size	Character Height	C.H.	7.6	mm	
	Character Width	C.W.	5.4	mm	
Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	Ef	1.53	1.7	1.87	Vdc
Peak Grid Voltage	ec	-	24.0	35.0	Vp-p
Peak Anode Voltage	eb	-	24.0	35.0	Vp-p
Cut-off Bias	Ek	-	-	-	Vdc
Duty Cycle	Du	-	1/ 7.5	-	-
Pulse Width	tp	-	80	-	uS
Operating Temperature	Topr	-20	-	+ 70	C
Storage Temperature	Tstg	-55	-	+ 80	C
Color of Illumination	Green				

**Electrical
Characteristics**

Item	Symbol	Test Condition	Min.	Typical	Max.	Unit
Filament Current	If -	Ef = 1.7 Vdc eb = ec = 0	70.0 -	78.0 -	86.0 -	mA -
Anode Current	ib/1G,2G,4G, 5G Ib/3G - - -	Ef = 1.7 Vdc eb = 24.0 Vp-p ec = 24.0 Vp-p Du = 1/7.5 tp = 80 uS Ek = 2Vdc	-	1.8	3.6	mA _{p-p}
			-	-	-	mA _{p-p}
			-	-	-	mA _{p-p}
			-	-	-	mA _{p-p}
			-	-	-	mA _{p-p}
Grid Current	ic/1G,2G4G, 5G Ic/3G - - -		-	1.8	3.6	mA _{p-p}
			-	1.5	3.0	mA _{p-p}
			-	-	-	mA _{p-p}
			-	-	-	mA _{p-p}
			-	-	-	mA _{p-p}
Luminance	L(G) -		686 (200)	1440 (420)	-	cd/m ² fL
Luminance Ratio	Lmin/Lmax		50	-	-	%
Grid Cut-off Voltage	Ecco	Ef = 1.7 Vdc Eb = 24.0 Vdc	(-2.0)	-	-	Vdc
Anode Cut-off Voltage	Ebco	Ef = 1.7 Vdc ec = 24.0 Vp-p Du = 1/7.5 tp = 80 uS	(-20)	-	-	Vdc

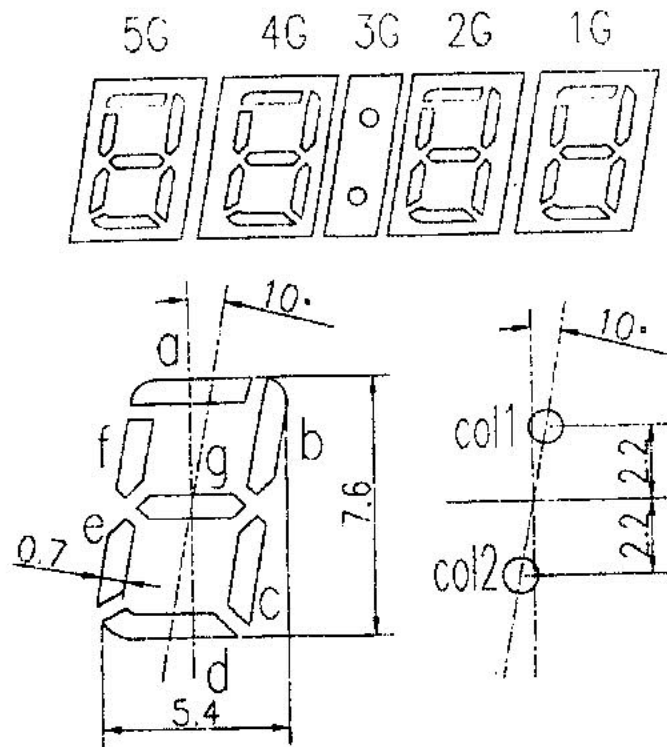
Outline Drawing (Unit:mm)



Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Connect	F(-)	9	f	G5	e	d	G4	c	G3	b	G2	a	col2	G1	col1	F(+)

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Display Pattern And Grid Assignment



(color of illumination)

(Green):(x=0.250,y=0.440)

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