

User's Guide

C-33-1606F

VFD

(Vacuum Fluorescent Character Display Module)

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Vacuum Fluorescent Display Specification

PART NUMBER: C-33-1606F

FEATURES: 12 Digits, Custom Dot Matrix, with Icons – AUDIO

APPLICATION: Character Display (*Custom DM*)

RATINGS: Below

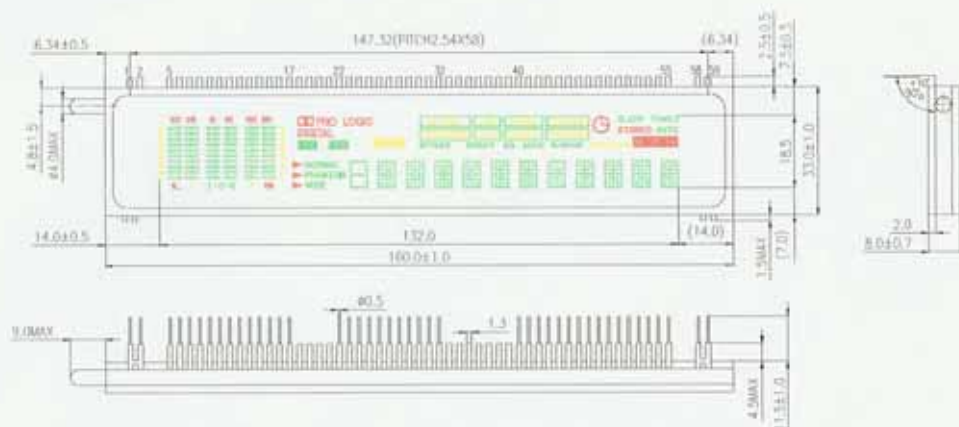
Outer Dimensions	Panel Length	P.L.	160.0	mm	
	Panel Height	P.H.	33.0	mm	
	Panel Thickness	P.T.	8.0	mm	
Leads	Lead Pitch	L.P.	2.5	mm	
	Lead Out	-	SIL		
Character Size	Character Height	C.H.	7.2	mm	
	Character Width	C.W.	5.0	mm	
Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	Ef	5.22	5.8	6.38	Vac
Peak Grid Voltage	ec	-	33.0	40.0	Vp-p
Peak Anode Voltage	eb	-	33.0	40.0	Vp-p
Cut-off Bias	Ek	-	-	-	-
Duty Cycle	Du	-	1/ 20	-	-
Pulse Width	tp	-	80	-	uS
Operating Temperature	Topr	-20	-	+ 70	C
Storage Temperature	Tstg	-55	-	+ 80	C
Color of Illumination	Green / Red / Yellow				

* Life = 10,000hrs to half brightness

Electrical Characteristics

Item	Symbol	Test Condition	Min.	Typical	Max.	Unit
Filament Current	If -	Ef = 5.8 Vac eb = ec = 0	162.0 -	180.0 -	198.0 -	mAac -
Anode Current	ib/2~12G ib/14~16G ib/13G ib/1G -	Ef = 5.8 Vac eb = 33.0 Vp-p ec = 33.0 Vp-p Du = 1/20 tp = 80 uS	-	6.5	13.0	mA _{p-p}
			-	24.0	41.0	mA _{p-p}
			-	38.0	65.0	mA _{p-p}
			-	72.0	122.0	mA _{p-p}
			-	-	-	mA _{p-p}
Grid Current	Ic/2~12G ic/14~16G ic/13G ic/1G -		-	6.0	12.0	mA _{p-p}
			-	30.0	51.0	mA _{p-p}
			-	48.0	82.0	mA _{p-p}
			-	62.0	107.0	mA _{p-p}
			-	-	-	mA _{p-p}
Luminance	L(G) L(R) L(Y)		350 (102)	700 (204)	-	cd/m ² (fL)
			35 (10)	70 (20)		cd/m ² (fL)
			60 (17.5)	120 (35)		cd/m ² (fL)
Luminance Ratio	Lmin/Lmax		50	-	-	%
Grid Cut-off Voltage	Ecco	Ef = 5.0 Vac Eb = 33.0 Vdc	-6.1	-	-	Vdc
Anode Cut-off Voltage	Ebco	Ef = 5.0 Vac Ec = 33.0 Vp-p Du = 1/1620 tp = 80 uS	-6.1	-	-	Vdc

Drive Mode: Dynamic state



PINOUT CONNECTIONS

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18-21	22	23
Connect	F1	F1	Np	Np	P1	P2	P3	P4	P5	P6	P7	P8	P9	P10	P11	P12	P13	Nc	P14	P15
Pin No.	24	25	26	27	28	29	30	31	32	33-39	40	41	42	43	44	45	46	47	48	49
Connect	P16	P17	P18	P19	P20	P21	P22	P23	P24	Nc	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G
Pin No.	50	51	52	53	54	55	56	57	58	59										
Connect	11G	12G	13G	14G	15G	16G	Np	Np	F2	F2										

F1 G1 P1 Np1 Nc1
 Filament Grid Anode No Pin No Connection

