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User's Guide

**C-25-0708**

**VFD**

(Vacuum Fluorescent Character Display Module)

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For product support, contact

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## Vacuum Fluorescent Display Specification

**PART NUMBER:** C-25-0708

**FEATURES:** 9 Digits, Alphanumeric, 7-Segments with fixed Icons – P.O.S

**APPLICATION:** Character Display (*Alpha + 7 Seg*)

**RATINGS:** Below

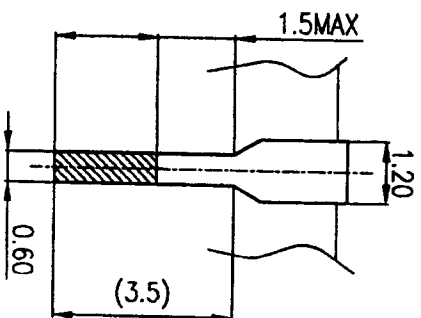
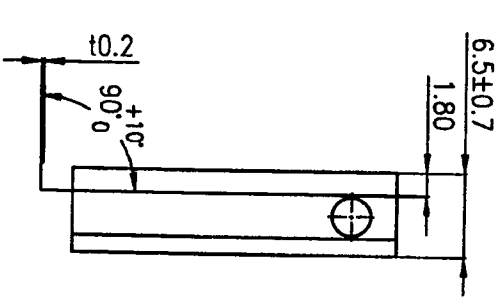
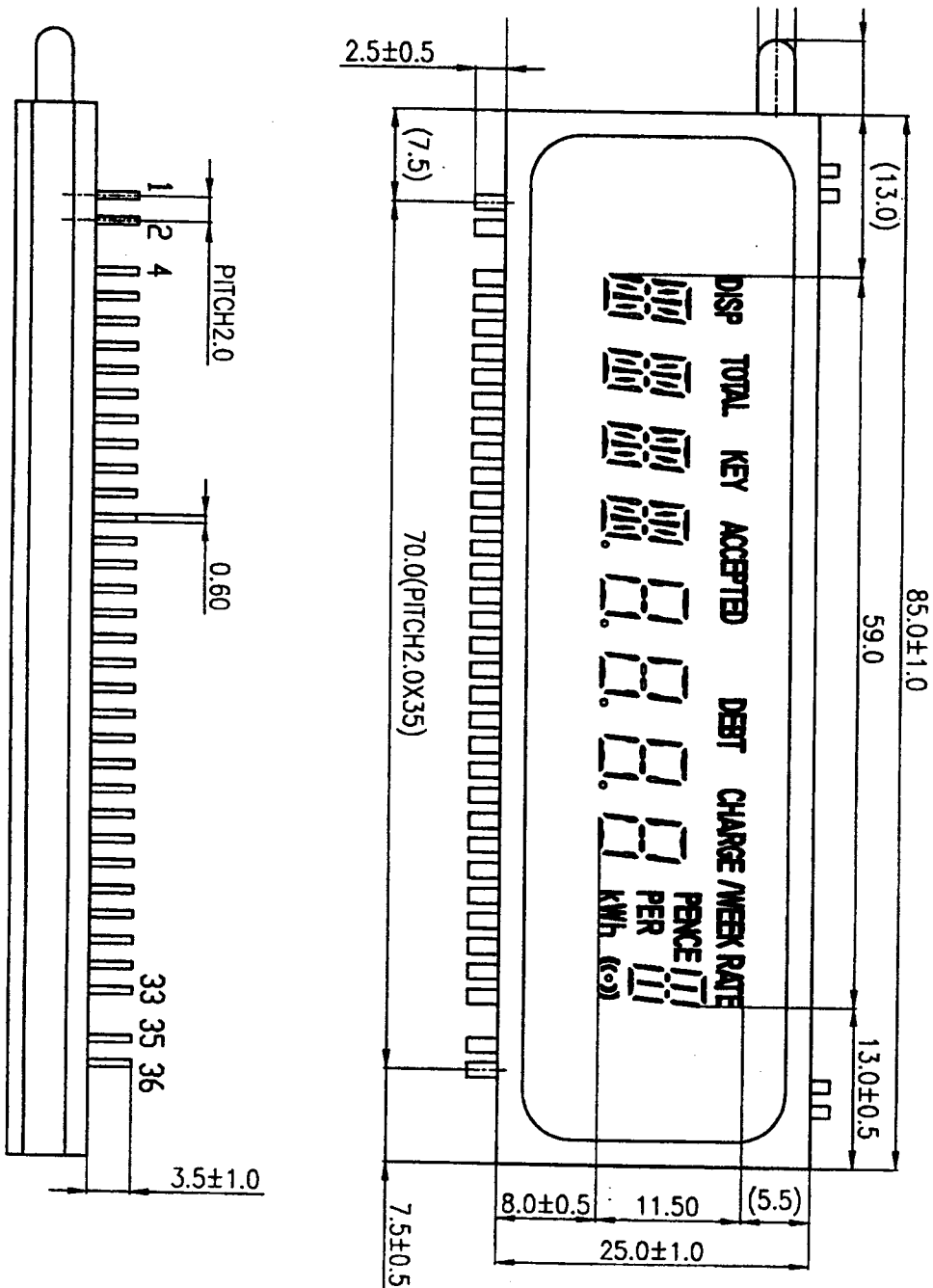
<b>Outer Dimensions</b>	Panel Length	P.L.	85.0	mm	
	Panel Height	P.H.	25.0	mm	
	Panel Thickness	P.T.	6.5	mm	
<b>Leads</b>	Lead Pitch	L.P.	2.0	mm	
	Lead Out	-	SIL		
<b>Character Size</b>	Character Height	C.H.	7.0	mm	
	Character Width	C.W.	4.3	mm	
<b>Item</b>	<b>Symbol</b>	<b>Min.</b>	<b>Recommended</b>	<b>Max.</b>	<b>Unit</b>
<b>Filament Voltage</b>	Ef	2.79	3.1	3.41	Vac
<b>Peak Grid Voltage</b>	ec	-	27.0	30.0	Vp-p
<b>Peak Anode Voltage</b>	eb	-	27.0	30.0	Vp-p
-	-	-	-	-	-
<b>Duty Cycle</b>	Du	-	1/8	-	-
<b>Pulse Width</b>	tp	-	140	-	uS
<b>Operating Temperature</b>	Topr	-20	-	+ 70	C
<b>Storage Temperature</b>	Tstg	-55	-	+ 80	C
<b>Color of Illumination</b>	Green				

## Electrical Characteristics

Item	Symbol	Test Condition	Min.	Typical	Max.	Unit
Filament Current	lf	Ef = 3.1 Vac	96.0	107.0	118.0	mAac
	-	eb = ec = 0	-	-	-	-
Anode Current	ib/1G	Ef = 3.1 Vac eb = 27.0 Vp-p ec = 27.0 Vp-p Du = 1/8 tp = 140 uS	-	12.0	24.0	mAp-p
	ib/2,3,4G		-	8.0	16.0	mAp-p
	ib/5,6,7G		-	5.0	10.0	mAp-p
	-		-	-	-	mAp-p
	-		-	-	-	mAp-p
Grid Current	ic/1G		-	12.0	24.0	mAp-p
	ic/2,3,4G		-	8.0	16.0	mAp-p
	ic/5,6,7G		-	5.0	10.0	mAp-p
	-		-	-	mAp-p	
	-		-	-	mAp-p	
Luminance	L(G)		500	1000	-	cd/m <sup>2</sup>
	-		(146)	(292)	-	fL
Luminance Ratio	Lmin/Lmax		50	-	-	%
Grid Cut-off Voltage	Ecco	Ef = 3.1 Vac Eb = 27.0 Vdc	-5.0	-	-	Vdc
Anode Cut-off Voltage	Ebco	Ef = 3.1 Vac ec = 27.0 Vp-p Du = 1/8 tp = 140 uS	-2.5	-	-	Vdc

\* Drive Mode is Dynamic State

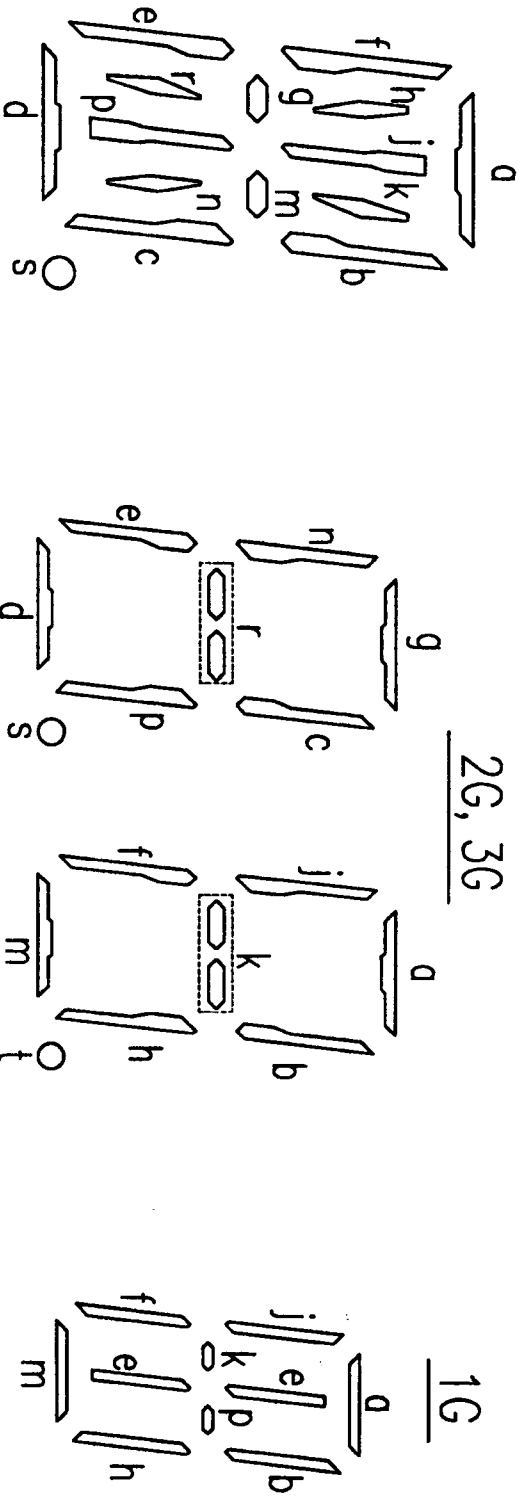
OUTLINE DRAWING (UNIT: mm)



LEAD DETAIL

<Grid Assignment and Segment Design>

7G	6G	5G	4G	3G	2G	1G
<b>DISP</b> <sup>t</sup>	<b>TOTAL</b> <sup>t</sup>	<b>KEY</b> <sup>t</sup>	<b>ACCEPTED</b> <sup>t</sup>	<b>DEBT</b> <sup>t</sup>	<b>CHARGE</b> <sup>t</sup>	<b>WEEK RATE</b> <sup>d</sup>
						9PENCE PER KWH ((C))



<Color of illumination>

<Green X=0.250, Y=0.440>

## (TERMINAL CONNECTION)

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Connection	F	F	NP	P (k)	7G	P (j)	P (b)	6G	P (a)	P (h)	5G	P (f)	P (m)	4G	P (t)	NC	3G	NC	NC
Pin No.	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
Connection	NC	3G	P (s)	2G	P (d)	P (e)	P (p)	2G	P (r)	1G	P (n)	P (c)	P (g)	1G	NP	F	F		

F: Filament    G: Grid    NP: No Pin    P: Anode    NC: No Connection