Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832
Email & Skype: info@chipsmall.com Web: www.chipsmall.com
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China

NEWHAVEN DISPLAY INTERNATIONAL

User's Guide

C-40-0701A

VFD

(Vacuum Fluorescent Character Display Module)

For product support, contact

New haven Display International
2511 Technology Drive #101
E lgin , IL 601 24
Tel: (847) 8 44-8795 Fax: (847) 8 44-8796

October 31, 2006

NEWHAVEN DISPLAY INTERNATIONAL

October 31, 2006

Vacuum Fluorescent Display Specification

PART NUMBER: C-40-0701A

FEATURES: 5 Digits, Custom Seven Segmented, with Icons – Microwave oven

APPLICATION: Character Display (*Custom 7-Seg*)

RATINGS: Below

Outer Dimensions	Panel Length	P.L.	86.0	mm
	Panel Height	P.H.	40.0	mm
	Panel Thickness	P.T.	8.5	mm
Leads	Lead Pitch	L.P.	2.54	mm
	Lead Out	-	SIL	
Character Size	Character Height	C.H.	-	mm
	Character Width	C.W.	-	mm

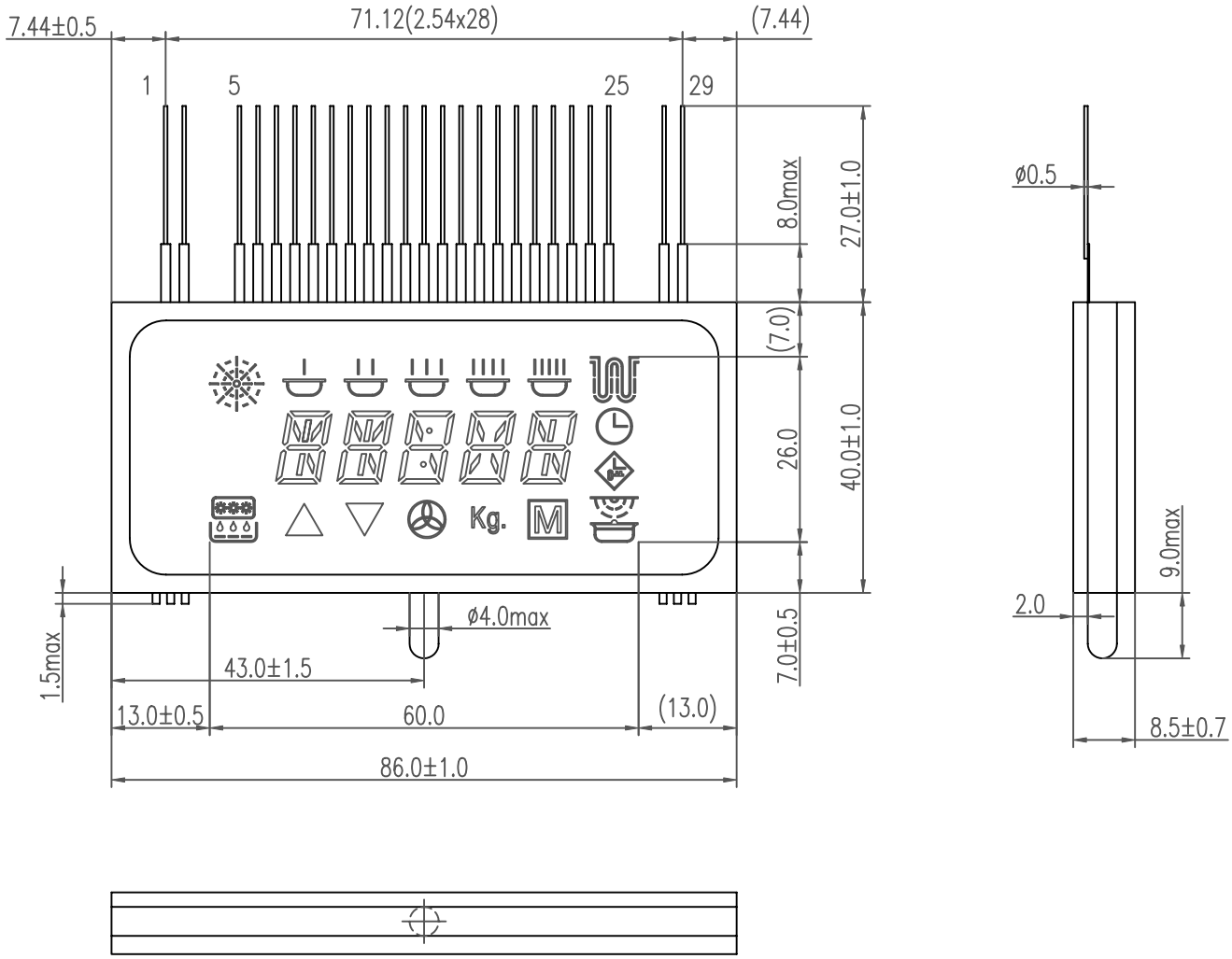
Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	Ef	2.8	3.10	3.4	Vac
Peak Grid Voltage	Ec	-	28.0	31.0	Vp-p
Peak Anode Voltage	Eb	-	28.0	31.0	Vp-p
Cut-off Bias	Ek	-	-	-	-
Duty Cycle	Du	-	1/7.79	-	-
Pulse Width	Tp	-	920	-	uS
Operating Temperature	Topr	-40	-	+ 80	C
Storage Temperature	Tstg	-55	-	+ 85	C
Color of Illumination	Green / Red				

Electrical Characteristics

Item	Symbol	Test Condition	Min.	Typical	Max.	Unit
Filament Current	If	Ef = 3.1 Vac	185.0	208.0	230.0	mAac
	-	eb = ec = 0	-	-	-	-
Anode Current	ib/1G,4G	Ef = 3.1 Vac	-	10.0	20.0	mAp-p
	ib/2G	eb = 28.0 Vp-p	-	-	-	mAp-p
	ib/3G	ec = 28.0 Vp-p	-	-	-	mAp-p
	-	Du = 1/7.79	-	-	-	mAp-p
	-	tp = 920 uS	-	-	-	mAp-p
Grid Current	ic/1G, 4G		-	10.0	20.0	mAp-p
	ic/2G		-	-	-	mAp-p
	ic/3G		-	-	-	mAp-p
	-		-	-	-	mAp-p
	-		-	-	-	mAp-p
Luminance	L(G)		350 (102)	700 (204)	-	cd/m^2 (fL)
	L(R)		35 (10.2)	70 (20.4)	-	cd/m^2 (fL)
	-		-	-	-	cd/m^2 (fL)
Luminance Ratio	Lmin/Lmax		50	-	-	%
Grid Cut-off Voltage	Ecco	Ef = 3.1 Vac Eb = 28.0 Vdc	-4.5	-	-	Vdc
Anode Cut-off Voltage	Ebco	Ef = 3.1 Vac ec = 28.0 Vp-p Du = 1/7.79 tp = 920 uS	-3.0	-	-	Vdc

Drive Mode: Dynamic state

附图 1：外形图 Outline Drawing (Unit:mm)



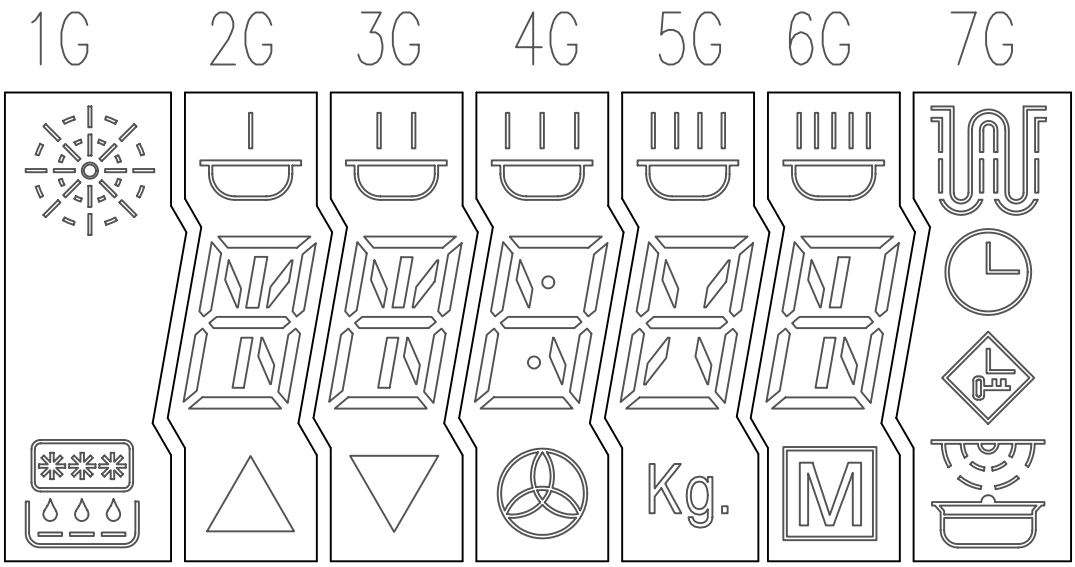
管脚连接：(Pin Connection)

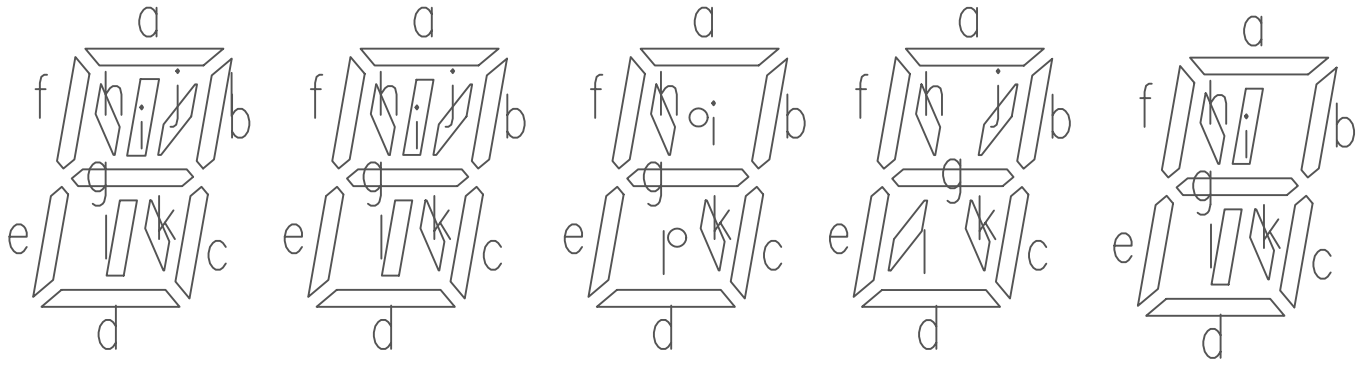
端子序号(Pin No)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
连接(Connection)	F	F	Np	NP	1G	P14	P13	P12	2G	P11	P10	3G	P9	P8	4G	P7	P6	P5	5G	P4
端子序号(Pin No)	21	22	23	24	25	26	27	28	29											
连接(Connection)	P3	6G	P2	P1	7G	NP	NP	F	F											

注：F：灯丝（Filament） P：阳极（Anode） G：栅极（Grid） NP：无引脚(No Pin)

编号 Mark:

附图2：显示内容及栅极分割　　Display Pattern And Grid Assignment



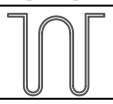
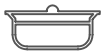
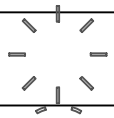
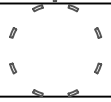


显示颜色：(color of illumination)

红色 (Red): (x=0.627,y=0.371)

绿色 (Green):(x=0.250,y=0.440)　　others

附图3: 阳极连接 Anode Connection

	1G	2G	3G	4G	5G	6G	7G
P1	——	a	a	a	a	a	
P2	——	b	b	b	b	b	
P3	——	c	c	c	c	c	——
P4	——	d	d	d	d	d	
P5	——	e	e	e	e	e	
P6	——	f	f	f	f	f	
P7							——
P8		g	g	g	g	g	——
P9		h	h	h	h	h	——
P10		i	i	i	——	i	——
P11		j	j	——	j	——	——
P12	——	k	k	k	k	k	
P13		l	l	l	l	l	——
P14					Kg.		——

注:具体应用时可将1G和7G合并为同一栅极