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User's Guide

C-29-1201

VFD

(Vacuum Fluorescent Character Display Module)

For product support, contact

New haven Display International
2511 Technology Drive #101
Elgin , IL 601 24
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October 31, 2006

Vacuum Fluorescent Display Specification

PART NUMBER: C-29-1201

FEATURES: 6 Digits, Alphanumeric, with Icons – AUDIO / DVD

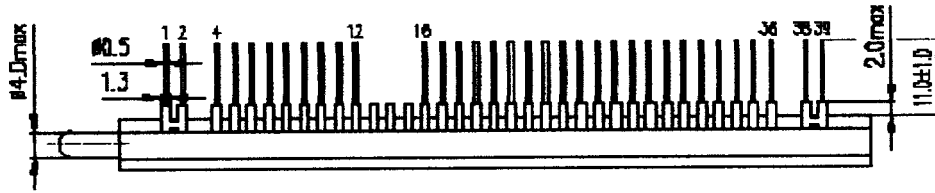
APPLICATION: Character Display (Alphanumeric)

RATINGS: Below

Outer Dimensions	Panel Length	P.L.	100.2	mm	
	Panel Height	P.H.	29.0	mm	
	Panel Thickness	P.T.	7.5	mm	
Leads	Lead Pitch	L.P.	2.54	Mm	
	Lead Out	-	SIL		
Character Size	Character Height	C.H.	10.5	mm	
	Character Width	C.W.	5.0	mm	
Item	Symbol	Min.	Recommended	Max.	Unit
Filament Voltage	Ef	3.7	4.2	4.6	Vac
Peak Grid Voltage	Ec	-	28.0	35.0	Vp-p
Peak Anode Voltage	Eb	-	28.0	35.0	Vp-p
Cut-off Bias	Ek	-	-	-	-
Duty Cycle	Du	-	1/13	-	-
Pulse Width	Tp	-	100	-	uS
Operating Temperature	Topr	-20	-	+ 70	C
Storage Temperature	Tstg	-55	-	+ 80	C
Color of Illumination	Green / Red / Yellow				

Electrical Characteristics

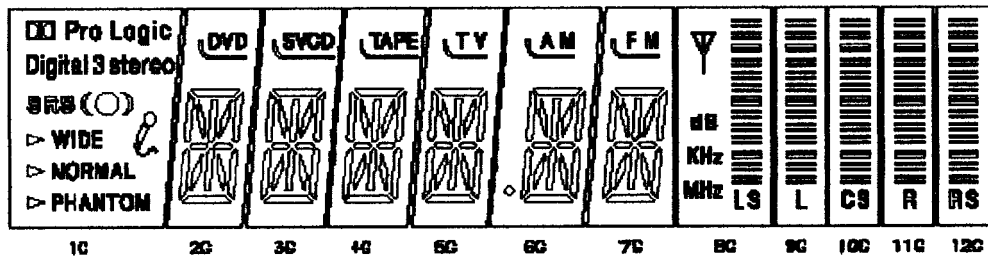
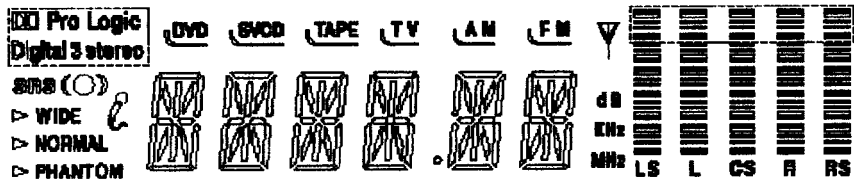
Item	Symbol	Test Condition	Min.	Typical	Max.	Unit
Filament Current	lf -	Ef = 4.2 Vac eb = ec = 0	145.0 -	162.0 -	178.0 -	mAac -
Anode Current	ib/1G	Ef = 4.2 Vac eb = 28.0 Vp-p ec = 28.0 Vp-p Du = 1/13 tp = 100 uS	-	14.0	28.0	mA _{p-p}
	ib/2~6G		-	11.0	22.0	mA _{p-p}
	ib/7G		-	9.5	19.0	mA _{p-p}
	ib/8~12G		-	7.5	15.0	mA _{p-p}
	-		-	-	-	-
Grid Current	ic/1G		-	13.0	26.0	mA _{p-p}
	ic/2~6G		-	10.0	20.0	mA _{p-p}
	ic/7G		-	9.5	19.0	mA _{p-p}
	ic/8~12G		-	7.5	15.0	mA _{p-p}
	-		-	-	-	-
Luminance	L(G)		350 (102)	700 (204)	-	cd/m ² (fL)
	L(R)		35 (10)	70 (20)		cd/m ² (fL)
	L(Y)		60 (17)	120 (34)		cd/m ² (fL)
Luminance Ratio	Lmin/Lmax		50	-	-	%
Grid Cut-off Voltage	Ecco	Ef = 4.2 Vac Eb = 28.0 Vdc	-5.0	-	-	Vdc
Anode Cut-off Voltage	Ebco	Ef = 4.2 Vac ec = 28.0 Vp-p Du = 1/13 tp = 100 uS	-5.0	-	-	Vdc

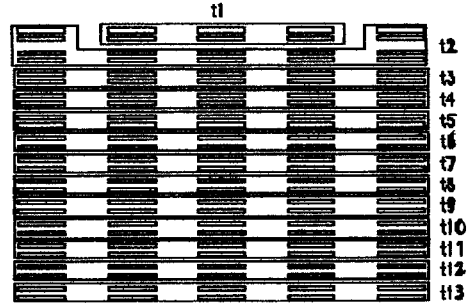
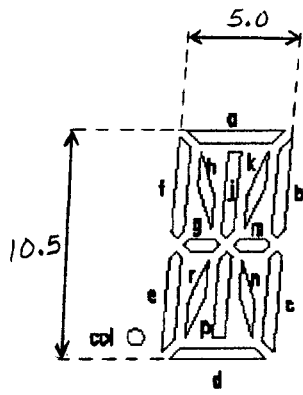


PINOUT CONNECTIONS

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Connect	F	F	NP	P9	P8	P7	P6	P5	P4	P3	P2	P1	NC	NC	NC	1G	2G	3G	4G	5G
Pin No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	
Connect	6G	7G	8G	9G	10G	11G	12G	P10	P11	P12	P13	P14	P15	P16	P17	P18	NP	F	F	

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





	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G
P1	DID Pts Logic	DND	SVCD	TAPE	TV	AM	FM	t2	t1	t1	t1	
P2	Digital							t3	t2	t2	t2	t2
P3	3	a	a	a	a	a	a	t4	t3	t3	t3	t3
P4	stereo	f	f	f	f	f	f	t5	t4	t4	t4	t4
P5	SBS (O)	h	h	h	h	h	h	t6	t5	t5	t5	t5
P6	▷ (WIDE)	j	j	j	j	j	j	t7	t6	t6	t6	t6
P7	▷ (HORIZONTAL)	k	k	k	k	k	k	t8	t7	t7	t7	t7
P8	▷ (PHANTOM)	b	b	b	b	b	b	t9	t8	t8	t8	t8
P9	WIDE, NORMAL, PHANTOM	q	q	q	q	q	q	t10	t9	t9	t9	t9
P10	ℓ	m	m	m	m	m	m	t11	t10	t10	t10	t10
P11		e	e	e	e	e	e	t12	t11	t11	t11	t11
P12		r	r	r	r	r	r	t13	t12	t12	t12	t12
P13		p	p	p	p	p	p	t8	t13	t13	t13	t13
P14		n	n	n	n	n	n	t14				
P15		c	c	c	c	c	c	t15				
P16		d	d	d	d	d	d	t15	L	t5	R	t5
P17								Y				
P18						col						