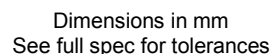


MN14032A

- This VF glass includes 2x 240 bit serial shift registers, PWM decoder and latched driver which connects to the anode and grid electrodes. An external host is required to provide a multiplexing data stream to refresh the display. The signal inputs can be connected to the ports of a CMOS microprocessor. The filament supply F-, F+ can be derived from a DC source. Consult our full data sheet and application notes for further information on grey scale operation.



Pin	Sig
1	F (-)
2	F (-)
3	F (-)
6	V _{DD2}
7	V _{SS}
8	V _{SS}
9	V _{DD1}
10	BLK
11	LAT
12	GCP
13	SOUT2
14	SOUT1
15	CLK
16	SIN1
17	SIN2
40	F (+)
41	F (+)
42	F (+)

Parameter	Sym	Min	Typ	Max	Unit	Condition
Logic Voltage	V _{DD1}	3.0	3.3	3.7	V	V _{SS} =0V
Logic Current	I _{DD1}	-	2.0	4.0	mA	V _{DD1} =3.3V
Filament Voltage	E _f	3.1	3.4	3.8	Vac	V _{DD2} =0V
Filament Current	I _f	203.0	225	248.0	mAac	V _{DD2} =0V
Display Voltage	V _{DD2}	-	42.0	45.0	V	V _{SS} =0V
Display Current	I _{DD2}	-	12.0	18.0	mA	V _{DD2} =42V
Filament Bias	E _k	-	1.0	-	V	V _{SS} =0V
Logic High Input	V _{IH}	V _{DD1x.85}	-	V _{DD1}	V	V _{SS} =0V
Logic Low Input	V _{IL}	V _{ss}	-	V _{DD1x.15}	V	V _{SS} =0V
Logic High Input	I _{IH}	-	-	5.0	μA	V _{DD1} =3.3V
Logic Low Input	I _{IL}	-250	-70	-35	μA	V _{DD1} =3.3V

Parameter	Value
Display Area (XxY mm)	69.85 x 21.61
Dot Size/Pitch (XxY mm)	0.35 x 0.53/0.5 x 0.68
Luminance	700 cd/m ² Typ.
Colour of Illumination	Blue-Green (Filter for colours)
Operating Temperature	-40°C to +85°C
Storage Temperature	-50°C to +85°C
Operating Humidity (non condensing)	5 to 95% @ 25°C

-

Parameter	Time
CLK Cycle	400ns min
CLK High	200ns min
CLK Low	200ns min
SIN Setup	100ns min
SIN Hold	150ns min
LAT High	300ns min
CLK then LAT	250ns min
BLK Hold	10 μ s min

Timing diagram showing V_{DD1} and V_{DD2} signals. V_{DD2} is high (42V) during the ON state and low (0V) during the OFF state. V_{DD1} is low (0V) during the OFF state and high (3.3V) during the ON state.

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