

User's Guide

D0111LT-33-1101

VFD

(Vacuum Fluorescent Display Character Module)

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Vacuum Fluorescent Display Specification

PART NUMBER: D0111LT-33-1101

FEATURES: 11 Digits, 7-Segmented, Instrumentation, Scales

APPLICATION: Character Display (7-Segmented)

RATINGS: Below

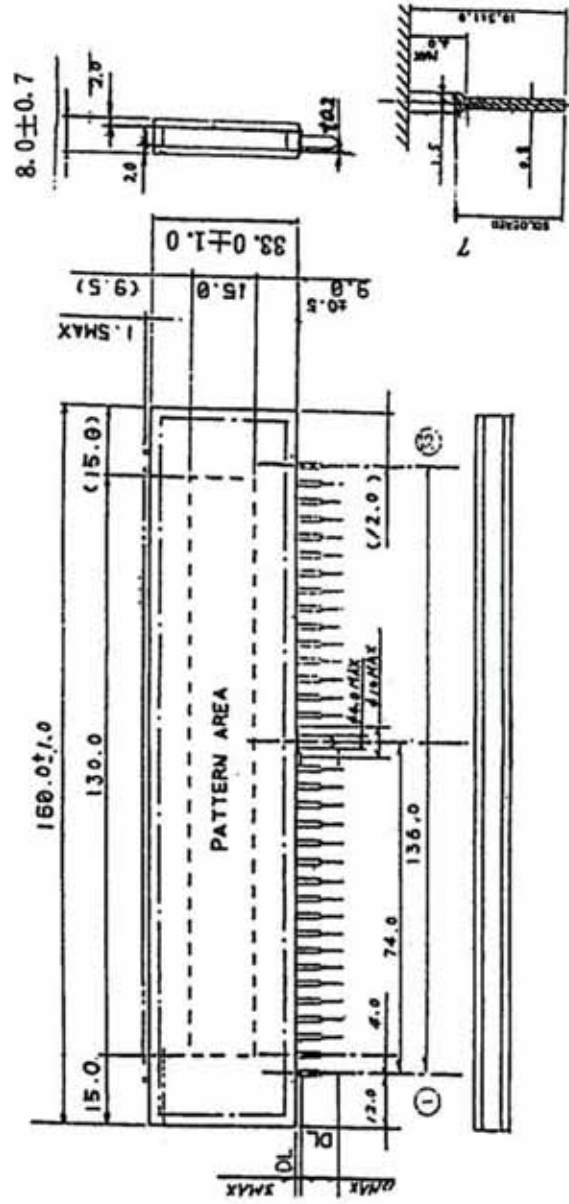
| Outer Dimensions | Panel Length | P.L. | 160.0 | mm | |
|-----------------------|------------------|--------|-------------|------|------|
| | Panel Height | P.H. | 33.0 | mm | |
| | Panel Thickness | P.T. | 8.0 | mm | |
| Leads | Lead Pitch | L.P. | 4.0 | mm | |
| | Lead Out | - | SIL | | |
| Character Size | Character Height | C.H. | 12.5 | mm | |
| | Character Width | C.W. | 6.3 | mm | |
| Item | Symbol | Min. | Recommended | Max. | Unit |
| Filament Voltage | Ef | 5.5 | 6.1 | 6.7 | Vac |
| Peak Grid Voltage | ec | - | 28.0 | 36.0 | Vp-p |
| Peak Anode Voltage | eb | - | 28.0 | 36.0 | Vp-p |
| Life | tp | 10,000 | - | - | Hrs |
| Duty Cycle | Du | - | 1/12.5 | - | - |
| Pulse Width | tp | - | 80 | - | uS |
| Operating Temperature | Topr | -40 | - | + 85 | C |
| Storage Temperature | Tstg | -50 | - | + 95 | C |
| Color of Illumination | Green | | | | |

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**Electrical
Characteristics**

| Item | Symbol | Test Condition | Min. | Typical | Max. | Unit |
|------------------------------|-------------|--|-------|---------|-------|-------------------|
| Filament Current | if | Ef = 6.1 Vdc | 117.0 | 130.0 | 143.0 | mAdc |
| | - | eb = ec = 0 | - | - | - | - |
| Anode Current | ib/1G~11G | Ef = 6.1 Vac | - | 8.0 | 17.0 | MAp-p |
| | - | eb = 28.0 Vp-p | - | - | - | MAp-p |
| | - | ec = 28.0 Vp-p | - | - | - | MAp-p |
| | - | Du = 1/12.5 | - | - | - | MAp-p |
| | - | tp = 80 uS | - | - | - | MAp-p |
| Grid Current | ic / 1G~11G | All Segments Lit | - | 11.0 | 18.1 | MAp-p |
| | - | | - | - | - | MAp-p |
| | - | | - | - | - | MAp-p |
| | - | | - | - | - | MAp-p |
| | - | | - | - | - | MAp-p |
| Luminance | L(G) | | 343 | 686 | - | cd/m ² |
| | - | | (100) | (200) | | fL |
| Luminance Ratio | Lmin/Lmax | | 50 | - | - | % |
| Grid Cut-off Voltage | Ecco | Ef = 6.1 Vdc eb = 28.0 Vdc All Segments Lit | -7.0 | - | - | Vdc |
| Anode Cut-off Voltage | Ebco | Ef = 6.1 Vac ec = 28.0 Vp-p Du = 1/12.5 tp = 80uS | -7.0 | - | - | Vdc |

OUTLINE DRAWING (UNIT :mm)

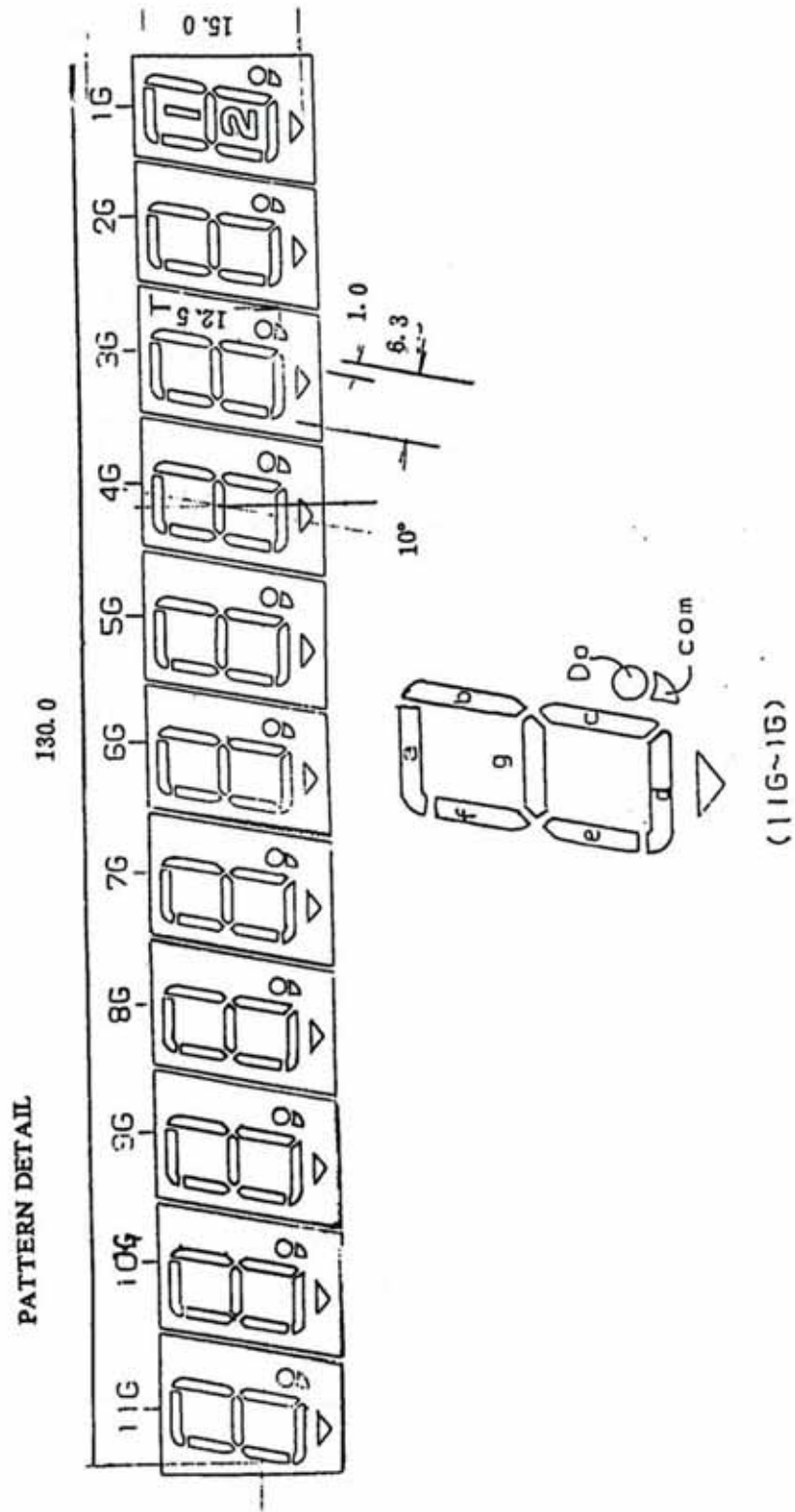


TERMINAL CONNECTION

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|----|-----|----|----|-----|----|----|----|----|----|----|-----|-----|----|-----|-----|----|----|-----|----|----|----|----|----|----|----|----|-----|-----|----|----|----|
| TERMINAL NO | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 |
| ELECTRODE | F | NC | 11G | NC | P7 | 10G | P6 | P5 | 9G | P4 | P9 | 8G | P10 | P14 | 7G | P13 | P12 | 6G | 5G | P11 | P8 | 4G | P3 | P2 | 3G | NC | P1 | 2G | P15 | P15 | 1G | NC | F |

Notes:

- F: Filament
- G: Grid
- P: Anode
- NC: Connection



ANODE CONNECTION

| | 11G | 10G | 9G | 8G | 7G | 6G | 5G | 4G | 3G | 2G | 1G |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| P1 | a | a | a | a | a | a | a | a | a | a | a |
| P2 | b | b | b | b | b | b | b | b | b | b | b |
| P3 | c | c | c | c | c | c | c | c | c | c | c |
| P4 | d | d | d | d | d | d | d | d | d | d | d |
| P5 | e | e | e | e | e | e | e | e | e | e | e |
| P6 | f | f | f | f | f | f | f | f | f | f | f |
| P7 | g | g | g | g | g | g | g | g | g | g | g |
| P8 | Dp | Dp | Dp | Dp | Dp | Dp | Dp | Dp | Dp | Dp | Dp |
| P9 | COM | COM | COM | COM | COM | COM | COM | COM | COM | COM | COM |
| P10 | - | ▽ | ▽ | - | ▽ | ▽ | - | ▽ | ▽ | - | ▽ |
| P11 | - | - | - | - | - | - | - | - | - | ▽ | - |
| P12 | - | - | - | - | - | - | ▽ | - | - | - | - |
| P13 | - | - | - | ▽ | - | - | - | - | - | - | - |
| P14 | ▽ | - | - | - | - | - | - | - | - | - | - |
| P15 | - | - | - | - | - | - | - | - | - | - | g |
| P16 | - | - | - | - | - | - | - | - | - | - | g |