

# 蛍光表示管製品規格

## VACUUM FLUORESCENT DISPLAY SPECIFICATION

形名 Type No. 6-BT-165 GK

双葉電子工業株式会社  
電子管工場 技術部  
ENGINEERING DEPT.  
ELECTRONIC DISPLAY PLANT  
FUTABA CORPORATION

用途: Application Audio

概要: Features 6 digits, 7 segments character with symbols.

発光色: Color of Illumination Green (G.  $x=0.235, y=0.405$ )

|                         |                 |      |                       |    |
|-------------------------|-----------------|------|-----------------------|----|
| 外形寸法<br>Outer Dimension | Panel Length    | P.L. | <u>75.0</u>           | mm |
|                         | Panel Height    | P.H. | <u>25.0</u>           | mm |
|                         | Panel Thickness | P.T. | <u>6.1</u>            | mm |
| 端子<br>Lead              | Lead Pitch      | L.P. | <u>2.54</u>           | mm |
|                         | Lead Out        | SIL  | <u><del>101</del></u> |    |

### 定格: Ratings

| 項目   | Item    | Symbol | Min.        | Recommended  | Max.        | Unit |
|--|---------|--------|-------------|--------------|-------------|------|
| フィラメント電圧: Filament Voltage                                   |         | Ef     | <u>2.25</u> | <u>2.5</u>   | <u>2.75</u> | Vdc  |
| せん頭グリッド電圧: Peak Grid Voltage                                 |         | ec     | -           | <u>20</u>    | <u>24</u>   | Vp-p |
| せん頭アノード電圧: Peak Anode Voltage<br>(下記 Du 条件: At following Du) | eb( G ) |        | -           | <u>20</u>    | <u>24</u>   | Vp-p |
|  | eb( )   |        | -           |              |             | Vp-p |
|  | eb( )   |        | -           |              |             | Vp-p |
|  | eb( )   |        | -           |              |             | Vp-p |
| カットオフバイアス: Cut-off Bias                                      |         | *1 Ek  | -           | <u>2.0</u>   | -           | Vdc  |
| デューティファクタ: Duty Factor                                       |         | Du     |             | <u>1/7.5</u> |             | -    |
| パルス幅: Pulse Width  |         | tp     |             | <u>80</u>    |             | μs   |
| 拡散グリッド電圧: Diffusion Grid Voltage                             |         | *2 Ecd | -           |              | -           | Vdc  |
| 動作温度: Operating Temperature                                  |         | Topr   | - 20        | -            | + 70        | °C   |
| 保存温度: Storage Temperature                                    |         | Tstg   | - 55        | -            | + 80        | °C   |

\*1. フィラメントの一端に印加する。

Ek is supplied to the minus side of the Filament terminal.

\*2. Ra = kΩ の抵抗を通して印加する。

Ecd is supplied through " kΩ " resistor to the Gd terminal.

注1. フィラメント電圧は表示管の寿命表示品位に大きな影響を与える要因となりますので、必ず定格範囲内で御使用ください。

Note 1. The filament voltage shall be kept within above rating to maintain the expected life and display quality.

注2. 本規格と異なる使い方をされる場合は、事前にご相談下さい。

Note 2. In case of the driving condition differs from this specification, consult to FUTABA for the proper usage.

## 電氣的特性 ; Electrical Characteristics

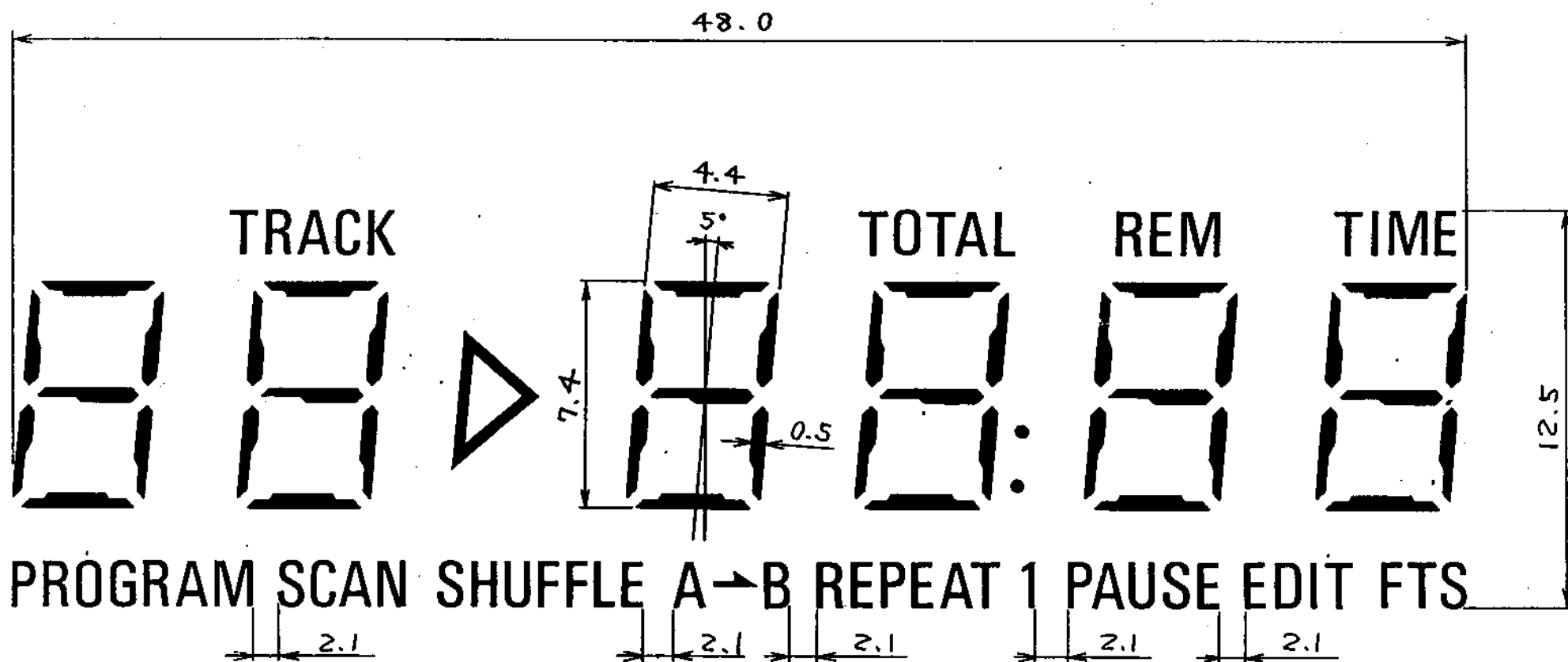
| Item                               | Test Condition  | Symbol                                  | Min.         | Typ.         | Max.     | Unit                      |
|------------------------------------|---|---|--------------|--------------|----------|---------------------------|
| フィラメント電流<br>Filament Current       | $E_f = 2.5 \text{ Vdc}$<br>$e_b = e_c = 0$  | $I_f$                                   | 112          | 125          | 138      | mA                        |
| アノード電流<br>Anode Current            | $E_f = 2.5 \text{ Vdc}$<br><br>$e_c = 20 \text{ Vp-p}$<br>$e_b(\text{ G }) = 20 \text{ Vp-p}$<br>$e_b(\text{    }) = \text{    Vp-p}$<br>$e_b(\text{    }) = \text{    Vp-p}$<br>$e_b(\text{    }) = \text{    Vp-p}$ | $i_b /$<br>1~4.6G                       | -            | 4            | 8        | mA                        |
|                                    |   | $i_b /$<br>5G                           | -            | 6            | 12       | mA                        |
|                                    |   | $i_b /$                                 | -            |              |          | mA                        |
|                                    |   | $i_b /$                                 | -            |              |          | mA                        |
|                                    |   | $i_b /$                                 | -            |              |          | mA                        |
|                                    |   | $i_b /$                                 | -            |              |          | mA                        |
| グリッド電流<br>Grid Current             | $E_k = 2 \text{ Vdc}$<br>$t_p = 80 \mu\text{s}$<br>$t_{\text{blank}} = 20 \mu\text{s}$<br>$D_u = 1/7.5$   | $i_c /$<br>1~4.6G                       | -            | 5            | 10       | mA                        |
|                                    |   | $i_c /$<br>5G                           | -            | 8            | 16       | mA                        |
|                                    |   | $i_c /$                                 | -            |              |          | mA                        |
|                                    |   | $i_c /$                                 | -            |              |          | mA                        |
| 拡散グリッド電流<br>Diffusion Grid Current |   | $I_{cd}$                                | -            | -            |          | mA                        |
| 輝度<br>Luminance<br><br>N           | $E_{cd} = \text{    Vdc}$<br>$R_d = \text{    k}\Omega$   | $L(\text{ G })$                         | 350<br>(102) | 700<br>(204) | -<br>(-) | cd/m <sup>2</sup><br>(fL) |
|                                    |   | $L(\text{    })$                        | (    )       | (    )       | (-)      | cd/m <sup>2</sup><br>(fL) |
|                                    |   | $L(\text{    })$                        | (    )       | (    )       | (-)      | cd/m <sup>2</sup><br>(fL) |
|                                    |   | $L(\text{    })$                        | (    )       | (    )       | (-)      | cd/m <sup>2</sup><br>(fL) |
|                                    |   |   |              |              |          |                           |
|                                    |   | $\frac{L_{\text{max}}}{L_{\text{min}}}$ | -            | -            | 2        |                           |
| グリッド消去電圧<br>Grid Cut-Off Voltage   | $E_f = 2.5 \text{ Vdc}$<br>$E_b = 20 \text{ Vdc}$<br>$E_c = \text{vary}$  | $E_{cco}$                               | - 2          | -            | -        | Vdc                       |
| アノード消去電圧<br>Anode Cut-Off Voltage  | $E_f = 2.5 \text{ Vdc}$<br>$D_u = 1/7.5$<br><br>$t_p = 80 \mu\text{s}$<br>$e_c = 20 \text{ Vp-p}$<br>$E_b = \text{vary}$  | $E_{bco}$                               | - 0          | -            | -        | Vdc                       |

形名 Type No.

6-BT-165GK

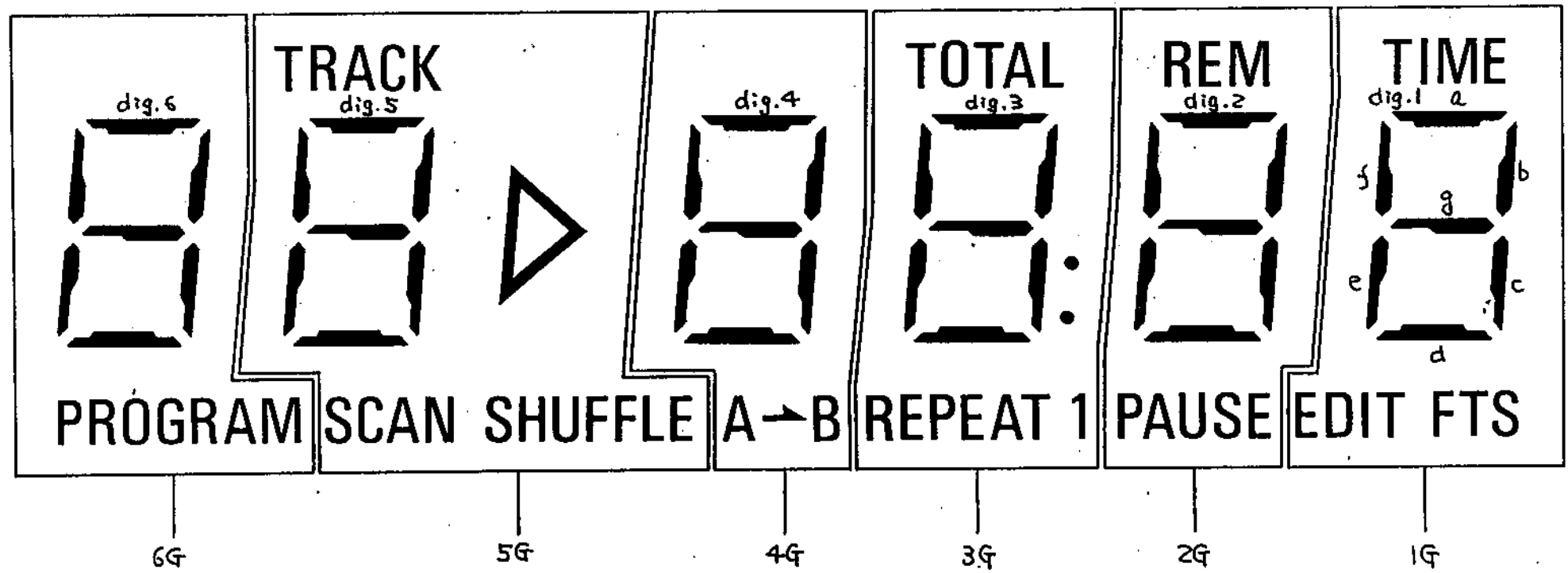


PATTERN DETAIL






6-BT-165GK  
PATTERN DETAIL

GRID ASSIGNMENT



# ANODE CONNECTION

|     | 6G      | 5G   | 4G   | 3G   | 2G    | 1G   |
|-----|---------|--|--|--|-------|------|
| P1  | 6a      | 5a   | 4a   | 3a   | 2a    | 1a   |
| P2  | 6b      | 5b   | 4b   | 3b   | 2b    | 1b   |
| P3  | 6c      | 5c   | 4c   | 3c   | 2c    | 1c   |
| P4  | 6d      | 5d   | 4d   | 3d   | 2d    | 1d   |
| P5  | 6e      | 5e   | 4e   | 3e   | 2e    | 1e   |
| P6  | 6f      | 5f   | 4f   | 3f   | 2f    | 1f   |
| P7  | 6g      | 5g   | 4g   | 3g   | 2g    | 1g   |
| P8  | -       | TRACK  | -  | TOTAL  | REM   | TIME |
| P9  | -       |  |  |  | -     | -    |
| P10 | PROGRAM | SCAN   | A  | REPEAT   | PAUZE | EDIT |
| P11 | -       | SHUFFLE  | B  | 1  | -     | FTS  |

6-BT-165GK  
ANODE CONNECTION