

Mazda Radio Valve Engineering Dept.

JEDEC NO. 6EL7

Siemens Edison Swan Limited, Gasos Works, Brimsdown, Enfield, Middlesex.

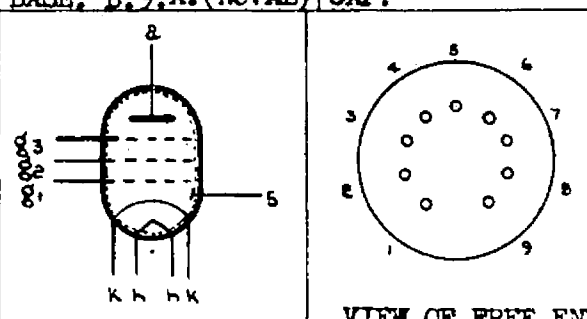
CHIEF ENGINEER'S OFFICE.

DATE 18th February, 1959

SUBJECT

T.D.S. No. 2-4848-01A

TENTATIVE.

| VALVE TYPE 6F23 | | | |
|--|-------|-------------|--|
| DIMENSIONS | | M.M. | TYPE |
| OVERALL LENGTH | MAX. | 67.5 | Screened H.F. Pentode. |
| DIAMETER | MAX. | 22.2 | CATHODE |
| SEATED HEIGHT | MAX. | 60.5 | Indirectly Heated. |
| | | | USE |
| | | | AC Mains or AC/DC Mains. |
| RATING | | | |
| Heater Volts | | 6.3 | NOTE |
| Heater Current (amps) | | 0.3 | |
| Maximum Anode Volts | | 250 | |
| Maximum Screen Volts | | 250 | |
| Mutual Conductance (mA/V) | | 9.2 | A |
| Inner Amplification Factor (g1 to g2) | | 64 | A |
| Maximum Anode Watts. | | 3 | B |
| Maximum Screen Watts | | 1 | B |
| Maximum Heater to Cathode Volts (RMS) | | 200 | C |
| Maximum Resistance Control Grid to Cathode (ohms) | | 600,000 | D |
| American Base E9-1. Bulb T6 1/2 | | | |
| CAPACITANCES μmF | | | BASING |
| | \$ | * ** | PIN ELECTRODE |
| g1-E | 9.0 | 9.0 10.0 | 1 k |
| a-E | 3.7 | 4.0 5.0 | 2 g1 |
| g1-a | 0.007 | 0.008 0.009 | 3 k |
| | | | 4 h |
| | | | 5 h |
| | | | 6 B |
| | | | 7 a |
| | | | 8 g2 |
| | | | 9 g3 |
| THE SYMBOL § DENOTES THE ELECTRODES OF THE SECOND VALVE SECTION OF THIS PARTIAL POTENTIAL ELECTRODES OF THE SECTION UNDER MEASUREMENT AS JOINED TO CATHODE UNLESS OTHERWISE STATED. MEASUREMENT WITH VALVE COOL. | | | BASE, B.9.A. (NOVAL) CAP.  |
| MOUNTING POSITION: Unrestricted. | | Basing 9AQ | |
| TYPICAL OPERATION. | | | |
| Anode Volts..... | 170 | | |
| Screen Volts..... | 170 | | |
| Self Bias Resistance..... (ohms)..... | 150 | | |
| Grid Bias Volts..... (Approx.)..... | -1.9 | | |
| Anode Current..... (mA)..... | 10 | | |
| Screen Current..... (mA)..... | 2.6 | | |
| Mutual Conductance..... (mA/V)..... | 9.2 | | |
| Equivalent Grid Noise Resistance..... (ohms) | 670 | | |
| Input Loss at 38 Mc/s \dagger (ohms) | 8,500 | | |
| Input Capacity working \dagger (μmF) Note E. | 12.1 | | |
| Change in Input Capacity produced by biasing valve to cut-off. (μmF) (Note E) | 2.45 | | |
| NOTES. \dagger The two cathodes strapped and joined directly to earth. A. At $V_a = V_{g2} = 170$. $I_a = 10\text{mA}$. B. With a grid cathode resistance not exceeding 10,000ohms. C. From cathode to higher potential heater pin. D. With maximum anode dissipation = 2watts; maximum screen dissipation = 0.5 watts. Assuming a common anode and screen decoupling resistance of not less than $2200 \pm 10\%$. E. Hot capacity measurements taken at a frequency of 38 Mc/s. * Interelectrode capacities with holder capacity balanced out. ** Total interelectrode capacity including B9A ceramic holder with-out skirt or radial shield (Plessey holder type CP180014/1) § Interelectrode capacities in fully shielded jig, without can | | | |

0.3A

07-11-56

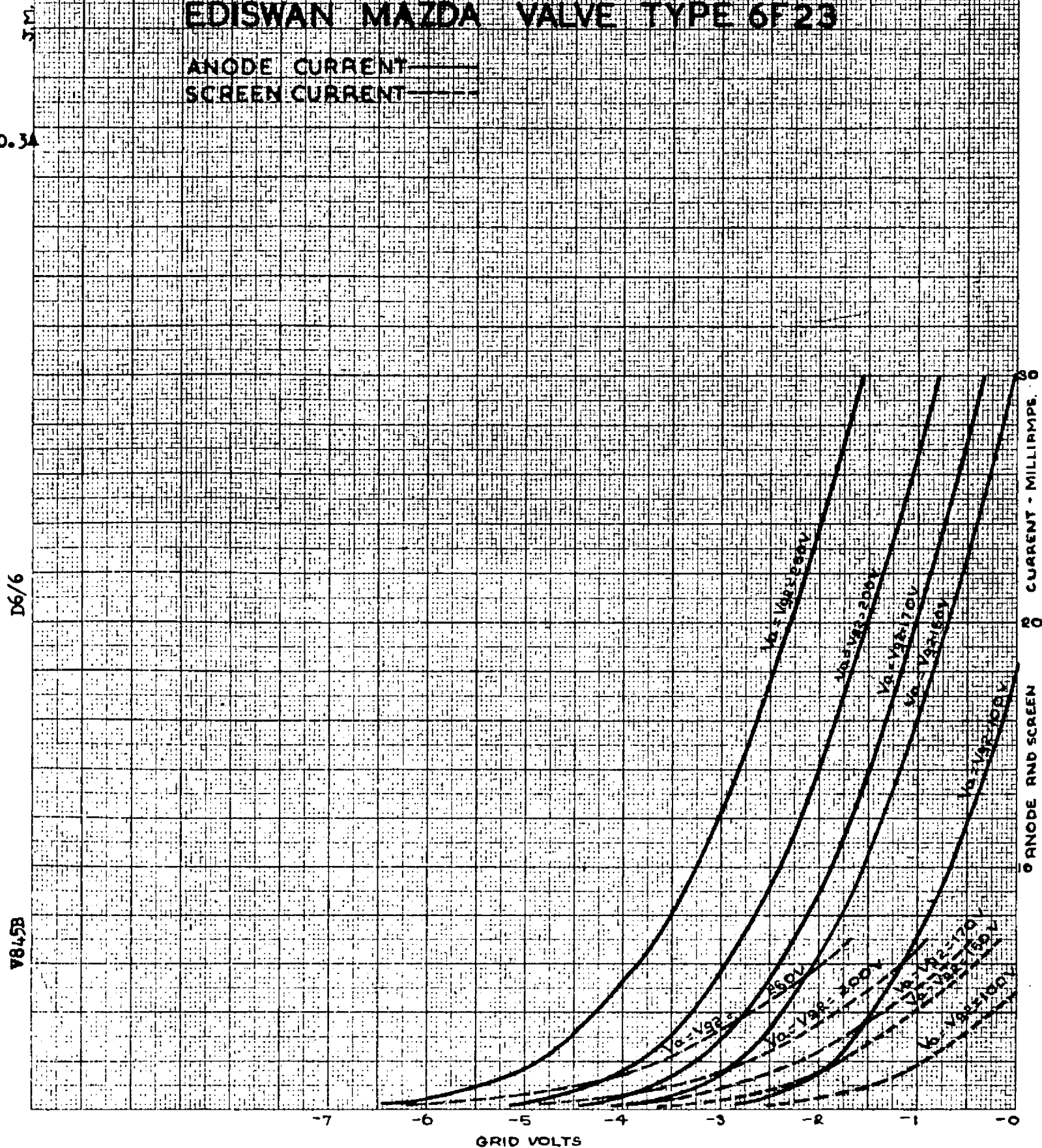
V845B

T.D.S. 012.

TD8 2-Y845B-101-1

TENTATIVE CHARACTERISTIC CURVES OF EDISWAN MAZDA VALVE TYPE 6F23

ANODE CURRENT ———
SCREEN CURRENT - - -



TENTATIVE CHARACTERISTIC CURVES OF EDISWAN MAZDA VALVE TYPE 6F23

ANODE CURRENT $V_{g_2} = 170$ ———

ANODE CURRENT $V_{g_2} = 190$ - - - -

SCREEN CURRENT $V_{g_2} = 170$ - - - - -

0.1A

06/6

Y845B

ANODE AND SCREEN CURRENTS - mA

40

30

20

10

0

100 ANODE VOLTS 200

300

$V_{g_1} = 0v$

$V_{g_1} = 0v$

$V_{g_1} = -0.5v$

$V_{g_1} = -0.5v$

$V_{g_1} = -1.0v$

$V_{g_1} = -1.0v$

$V_{g_1} = -1.5v$

$V_{g_1} = -2.0v$

$V_{g_1} = -2.5v$

$V_{g_1} = -3.0v$

$V_{g_1} = -3.5v$

$V_{g_1} = -4.0v$

$V_{g_2} = 190$

TDS 2-V845B-103-1

TENTATIVE CHARACTERISTIC CURVES OF EDISWAN MAZDA VALVE TYPE 6F23

0.3A

HL

4.25V

V845B

15

10

5

ANODE CURRENT (MA) PER VOLT

GRID VOLTS

-7 -6 -5 -4 -3 -2 -1 0

