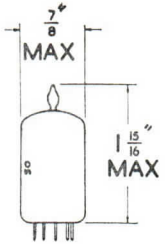
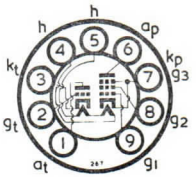
**Current Equipment Type**




# TYPE UCL83

## TRIODE PENTODE




The BRIMAR UCL83 is a triode and output pentode with separate cathodes designed primarily for use in A.F. applications.

| | |
|---|---|
| Heater Current | 0.1 amp. |
| Heater Voltage | 38 volts |

### RATINGS

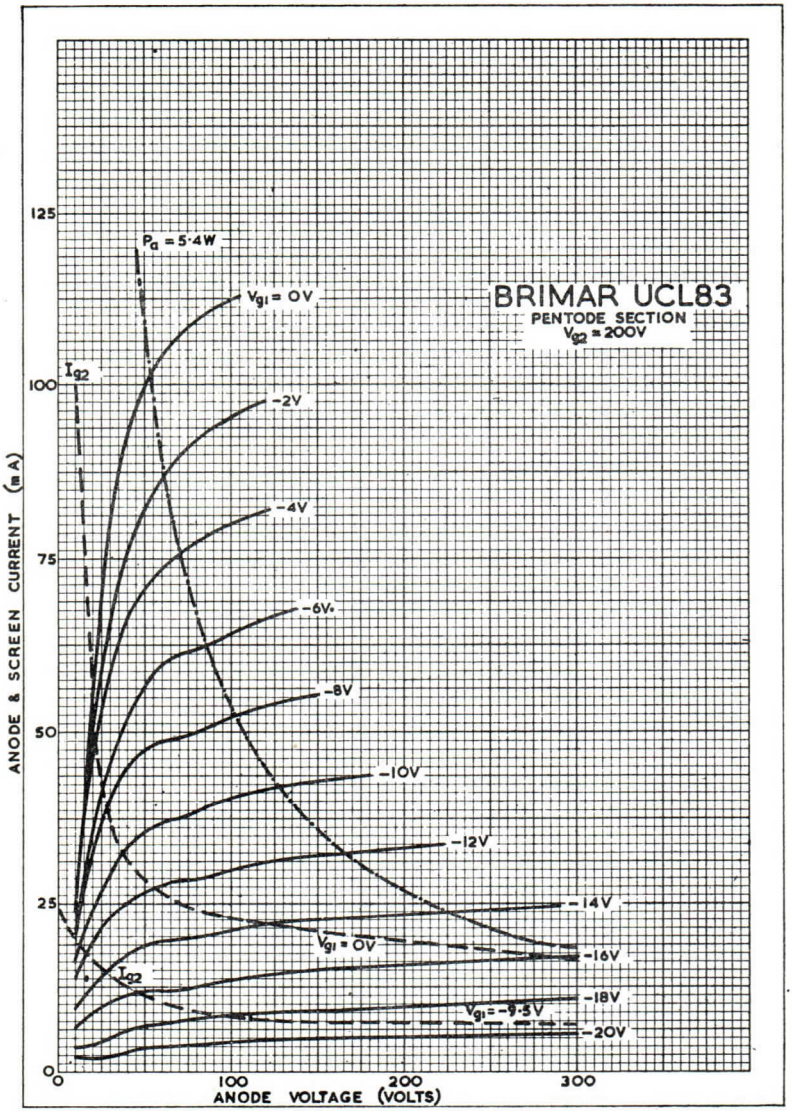
| | *Pentode* | *Triode* |
|---|---|---|
| Anode Supply Voltage (Ia = 0) | 550 | 550 volts max. |
| Anode Voltage | 250 | 250 volts max. |
| Anode Dissipation | 5.4 | 3.5 watts max. |
| Screen Supply Voltage ($Ig_2 = 0$) | 550 | — volts max. |
| Screen Voltage | 250 | — volts max. |
| Screen Dissipation | 1.2 | — watts max. |
| Screen Dissipation (Speech and music) | 2.4 | — watts max. |
| Cathode Current | 45 | 15 mA max. |
| Grid Resistor (Self bias) | 500 | — k ohm max. |
| Grid Resistor (Fixed bias) | 0.25 | 1.0 M ohm max. |
| Grid Resistor (Grid current bias) | — | 22 M ohm max. |
| Heater-Cathode Voltage (Cathode negative) | 100 | 100 volts max. |

### OPERATING CHARACTERISTICS

| | *Pentode* | *Triode* | |
|---|---|---|---|
| Anode Voltage | 170 | 170 | volts |
| Screen Voltage | 170 | — | volts |
| Anode Current | 30 | 1.6 | mA |
| Screen Current | 5.0 | — | mA |
| Grid Voltage | —9.5 | —1.5 | volts |
| Mutual Conductance | 5.5 | 2.1 | mA/V |
| Anode Impedance | 53 | 40 | k ohm |
| Amplification Factor | — | 82 | |
| Inner Amplification Factor ($\mu g_1$-$g_2$) | 10 | — | |

### INTER-ELECTRODE CAPACITANCES

| Pentode Section | | Triode Section | |
|---|---|---|---|
| Cin | 5.7 pF | Cin | 2.3 pF |
| Cout | 4.7 pF | Cout | 0.32 pF |
| $Cg_1$-h | 0.4 pF | Ca-g | 1.6 pF |
| Ca-$g_1$ (max.) | 0.2 pF | | |


BRIMAR UCL83
PENTODE SECTION
$V_{g2}$ = 200V
$P_a$ = 5·4W
$V_{g1}$ = 0V
-2V
-4V
-6V
-8V
-10V
-12V
-14V
-16V
-18V
-20V
$I_{g2}$
$V_{g1}$ = 0V
$V_{g1}$ = -9·5V
ANODE & SCREEN CURRENT (mA)
125
100
75
50
25
0
0
100
200
300
ANODE VOLTAGE (VOLTS)