# Radio Manufacturers Association Engineering Department 

RMA DATA BUREAU
90 Waet Stanmt
Naw Yoar 6, N. Y.
sponsor:
Amperex Electronic Corp.
Release No. 657
April 30, 1948
Gainía Counter tubes

|  | 1869 | 1870 |
| :---: | :---: | :---: |
| Filling ...................................... | Argon + quenching vapor | Argon + quenching vapor |
| Operating Temperature range..... | $-20^{\circ} \mathrm{C}$. to $+100^{\circ} \mathrm{C}$. | $0^{\circ} \mathrm{C}$. to $+100^{\circ} \mathrm{C}$. |
| Operating Voltrge.... | 1150 volts D.C. | 1400 volts D.C. |
| Plateau | in excess of 300 volts | in excess of 500 volts |
| Slope of Plateau. | 2\% to $5 \%$ per 100 volts | 10\% per 100 volts |
| Capacity ot terminals................. | 1.5 mm ! | 1.5 mmf |
| Cosmic Ray efficiency................ | greater than $99 \%$ | greater than 20\% |
| Dead time | 200 microseconds | 200 microseconds |
| Barkground-unshielded............... | 10 counts per minute | 2 counts per minute |
| Life expectency in counts. | greater than $10^{*}$ counts | greater than $10^{101}$ counts |
| Cathode Material | Copper | Copper |
| Effective Cothode Dimensions...... | 1\%if" longx 1/2"O.D. x 020"wall | 1!'is" longx 1/2"O.D. $x$. 020 " wall |



| Tube Tyoe | Item | As Reqistered | As Proposed |
| :---: | :---: | :---: | :---: |
| 1869 | $\left\{\begin{array}{l} \text { Plateau } \\ \text { Slope of Plateau } \\ \text { Dead Time } \end{array}\right.$ | in excess of 300 Volts $2 \%$ to $5 \%$ per 100 volts 200 microseconds | in excess of 200 volts $5 \%$ per 100 volts max. approx.70 microseconds |
| 1873 | $\begin{aligned} & \text { Slope of Plateau } \\ & \text { Dead Time } \end{aligned}$ | 2\% to 5\% per 100 volts 200 mic coseconds | $5 \%$ per 100 volts max. approx. 100 microseconds |
| 1875 | Oper Temp. range Slope of Plateau | $=70^{\circ} \mathrm{C} \text { to }+1000 \mathrm{C}$ <br> $2 \%$ to $5 \%$ per 100 volts | - 550 C to 770 C lo\% per 100 volts max. |
| $2 B 76$ | Oper. Temp. range Operating Voltage <br> Plateau <br> Slope of Plateau | $\begin{aligned} & -70^{\circ} \mathrm{C} \text { to }+100^{\circ} \mathrm{C} \\ & 450 \text { Volts D. C. } \\ & \text { in excess of loo volts } \\ & \text { 5\% per } 100 \text { Volts } \end{aligned}$ | $\begin{aligned} & 55^{\circ} \mathrm{C} \text { to }+75^{\circ} \mathrm{C} \\ & 700 \text { Volts D.C. } \\ & \text { in excess of } 200 \text { volts } \\ & 10 \% \text { per } 100 \text { volts max. } \end{aligned}$ |
| 1877 | $\begin{aligned} & \text { Oper. Temp. range } \\ & \text { Slope of Plateau } \\ & \text { Dead time } \end{aligned}$ | $=70^{\circ} \mathrm{C}+0+100^{\circ} \mathrm{C}$ $2 \%$ to $5 \%$ per 100 volts 200 microseconds | - $55^{\circ} \mathrm{C}$ to $+75^{\circ} \mathrm{C}$ 10\% per 100 volts max. approx. 320 microseconds |
| 1878 | Oper. Temp Range <br> Slope of plateau <br> Dead Time <br> Outline drawing | $-70^{\circ} \mathrm{C} \text { to }+100^{\circ} \mathrm{C}$ <br> $5 \%$ per 100 volts <br> 200 microseconds <br> see attached sheet | $-55^{\circ} \mathrm{C} \text { to }+75^{\circ} \mathrm{C}$ <br> $10 \%$ per 100 volts max. approx 100 microseconds |
| 1880 | $\begin{aligned} & \text { Oper Temp, range } \\ & \text { Operating voltage } \\ & \text { Picteau } \\ & \text { Slope of Plateau } \\ & \text { Deat time } \\ & \text { Outline drawing } \end{aligned}$ | ```-700}\textrm{C}\mathrm{ to + 1000 C 450 volts D.C. in excess of 100 volts 5% per lo0 volts 200 microseconds see attached sheet``` | $\begin{aligned} & 550 \mathrm{C} \text { to }+75^{\circ} \mathrm{C} \\ & \text { roo Volts D.C. } \\ & \text { in excess of } 200 \text { volts } \\ & \text { lo\% per } 100 \text { volts max. } \\ & \text { approx. } 180 \text { microseconds } \end{aligned}$ |
| 1 B81 | Oper. Temp.Range Slope of Plateau $\qquad$ | $\begin{aligned} & -70^{\circ} \mathrm{C} \text { to }+100^{\circ} \mathrm{C} \\ & 2 \% \text { to } 5 \% \text { per } 100 \text { Volts } \end{aligned}$ | $-55^{\circ} \mathrm{C} \text { to }+75^{\circ} \mathrm{C}$ $10 \%$ per 100 volts max. |
|  |  |  |  |

OLD TYPE IB78 AND $188^{\circ}$

(NEW)

