



MICROWAVE TRIODE 416B

Planar triode for use as microwave amplifier, mixer and oscillator at frequencies of about 4000 Mc. High transconductance gives the tube a superior figure of merit. Exceptionally low noise factor makes it particularly suitable as a pre-amplifier at very high frequencies ranging from 200 Mc to 4000 Mc. The frame grid, which is similar in principle to that described in Section A, has a lateral wire diameter of only .0065 mm.

CAPACITANCES

Grid to Plate, cold tube	1.5	$\mu\mu\text{F}$
Grid to Shell*, cold tube	10	$\mu\mu\text{F}$
Grid to Shell*, $E_t = 6.1 \text{ v}$, $E_b = 0 \text{ v}$	9	$\mu\mu\text{F}$
Plate to Shell*, cold tube02	$\mu\mu\text{F}$
Cathode to Shell, cold tube	45	$\mu\mu\text{F}$

* Cathode connected to Shell through "cathode to shell" capacitance.

ABSOLUTE MAXIMUM RATINGS

Plate Voltage	270	volts
Grid Voltage, positive value	+ 1.5	volts
Grid Voltage, negative value	— 15	volts
Plate Current	33	ma
Grid Current	15	ma
Plate Dissipation	7.5	watts
Heater — Cathode Voltage	45	volts
Plate Seal Temperature	150	$^{\circ}\text{C}$
Grid Seal Temperature	100	$^{\circ}\text{C}$

MECHANICAL DATA

Base: See drawing
Dimensions: See drawing
Mounting Position: Any
Socket: KS 14134

