

RETMA Registration Data
TYPE 1AQ5/1R5-SF
PENTAGRID CONVERTER

MECHANICAL DATA

Cathode coated filament
Outline drawing 5-2, Bulb T-5 1/2
Base E7-1, Miniature Button 7-Pin
Maximum diameter 3/4"
Maximum seated height 1 7/8"
Maximum overall length 2 1/8"
Pin connections Basing 7AT
Pin 1 - Negative filament, Grid #5
Pin 2 - Plate
Pin 3 - Grid #2, Grid #4
Pin 4 - Grid #1
Pin 5 - Negative filament, Grid #5
Pin 6 - Grid #3
Pin 7 - Positive filament
Mounting position Any

ELECTRICAL DATA

Filament Characteristics

Filament voltage (dc) 1.4 volts
Filament current 25 ma

Direct Interelectrode Capacitance*

Signal grid to mixer plate: (g3 to plate) 0.4 uuf max.
R.F. Input: g3 to (f, g5+g1+g2,4+p) 7.0 uuf
Mixer Output: p to (f, g5+g1+g2,4+g3) .. 7.5 uuf

* Without external shield

Ratings (Design center values)

Maximum plate voltage 90 volts
Maximum grid #2 & 4 voltage 67.5 volts
Maximum grid #2 & 4 supply voltage 90 volts
Maximum dc grid #3 voltage 0 volts
Maximum cathode current 5.0 ma

Typical Operation Condition and Characteristics**

Plate voltage 90 volts
Grid #2 & 4 voltage 45 volts
Grid #3 voltage 0 volts
Grid #1 resistor 0.1 megohms
Grid #1 voltage r.m.s. 15 volts

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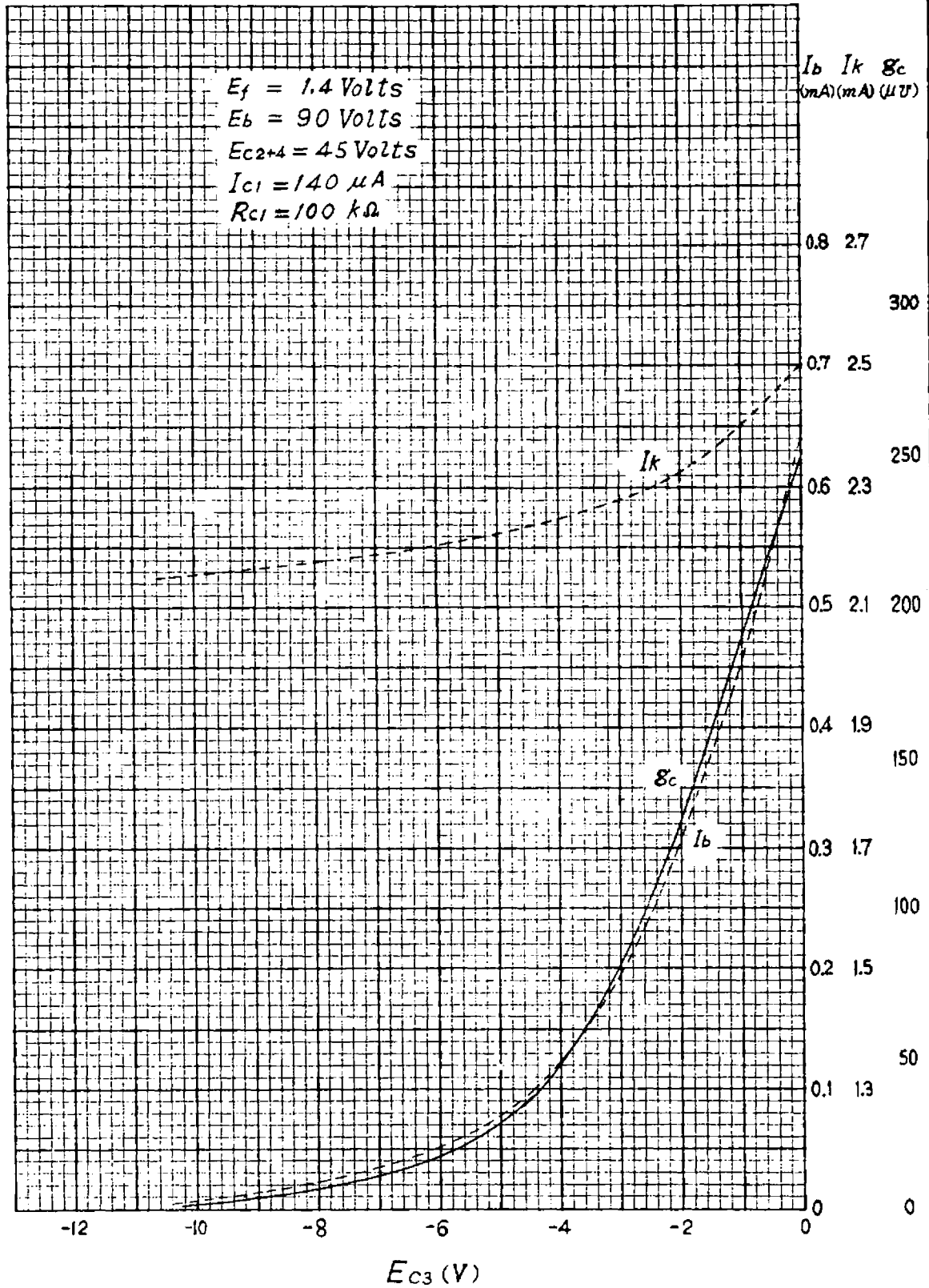
Plate resistance (approx.)	0.8 megohms
Conversion transconductance	250 micromhos
Cathode current	2.5 ma
Plate current	0.64 ma
Grid #1 current	0.14 ma

**Characteristics shown are obtained in the standard RETMA conversion conductance test set which uses separate excitation.

The characteristics under these conditions correspond very closely with those obtained in a self-excited oscillatory circuit.

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E_{c3} I_b , I_k , g_c Characteristics Curves



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I_{c1} , I_k , g_c Characteristics Curves

