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, Pin 5 - Negative filament,
       Grid #5 Grid #5
Pin 2 - Plate Pin 6 - Grid #3
Pin 3 - Grid #2, Grid #4 Pin 7 - Positive filament
Pin 4 - Grid #1
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*gl+g2,4*p) .... 7.0 uuf
   Mixer Output: p to (f, g5*gl+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

THE FEDERATION OF JAPAN ELECTRIC COMMUNICATION INDUSTRIAL ASSOCIATIONS
2/10/56
"Sankei Kaikan" Bldg.
3, 1-chome, Ohte-machi, Chiyoda-ku, Tokyo,
J A P A N
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.
$E_{c3}$ $I_b$, $I_k$, $g_c$ Characteristics Curves

$E_f = 1.4$ Volts
$E_b = 90$ Volts
$E_{c2+4} = 45$ Volts
$I_{c1} = 140 \mu A$
$R_{c1} = 100$ kΩ
$I_c, I_k, g_c$ Characteristics Curves

$E_f = 1.4$ Volts  
$E_b = 90$ Volts  
$E_{c2+4} = 45$ Volts  
$E_{c3} = 0$ Volts  
$R_{g1} = 100$ $k\Omega$