

from JEDEC release #3965, Nov. 5, 1962

JEDEC release #3965A (Jan. 28, 1963) states:

Delete data and substitute statement:
Type 6100 is the same as type 6C4.

TYPE: 6100

SPONSOR: JT-5 COMMITTEE

(JEDEC Committee on
Low-Power Vacuum Tubes)

TRIODE

Mechanical Data

Coated unipotential cathode

| | | | |
|----------------------------------|-----|-----------------------|------------|
| Outline drawing | 5-2 | Bulb | T 5 1/2 |
| Base | | E7-1 Miniature button | 7-pin |
| Maximum diameter | | | 3/4" |
| Maximum overall length | | | 2 1/8" |
| Maximum seated height | | | 1 7/8" |
| Pin connections | | | Basing 6BG |
| Pin 1 - Plate | | Pin 5 - Plate | |
| Pin 2 - Internal connection | | Pin 6 - Grid | |
| Pin 3 - Heater | | Pin 7 - Cathode | |
| Pin 4 - Heater | | | |
| Mounting position | | | Any |

Electrical Data

| <u>Direct interelectrode capacitances</u> | <u>With Shield *</u> | <u>Without Shield</u> | |
|---|----------------------|-----------------------|----|
| Grid to plate: (g to p) | 1.4 | 1.6 | μf |
| Input: g to (h + k) | 1.8 | 1.8 | μf |
| Output: p to (h + k) | 2.5 | 1.3 | μf |

* External shield No. 316 connected to pin No. 7.

Ratings

| | <u>Class A₁ Amplifier</u> | <u>Class C Telegraphy</u> | |
|--|--|-------------------------------|--------|
| Heater voltage (ac or dc) | 6.3 | 6.3 | volts |
| Maximum heater-cathode voltage | | | |
| Heater negative with respect to cathode: | | | |
| Total DC and peak | 200 | 200 | volts |
| Heater positive with respect to cathode: | | | |
| DC | 100 | 100 | |
| DC and peak | 200 | 200 | |
| Maximum plate voltage | 300 | 300 | volts |
| Maximum negative dc grid voltage . . . | --- | -50 | volts |
| Maximum grid circuit resistance (fixed bias) | 0.25 | 0.25 | megohm |
| Maximum plate dissipation | 3.5 | 5 | watts |
| Maximum dc plate current | --- | 25 | ma |
| Maximum dc grid current | --- | 8 | ma |

Typical operating conditions and characteristics, Class A₁ amplifier

| | | | |
|--------------------------------|------|------|-------|
| Heater voltage | 6.3 | 6.3 | volts |
| Heater current | 150 | 150 | ma |
| Plate voltage | 100 | 250 | volts |
| Grid voltage § | 0 | -8.5 | volts |
| Amplification factor | 19.5 | 17 | |

§ Transformer or impedance-type input coupling devices are recommended to minimize resistance in the grid circuit.

Typical operating conditions and characteristics, Class A1 amplifier (Continued)

| | | | |
|--|------|------|-------|
| Plate resistance | 6250 | 7700 | ohms |
| Transconductance | 3100 | 2200 | μhos |
| Plate current. | 11.8 | 10.5 | ma |
| Grid voltage (approx.) for Ib = 10 μa. | -10 | -25 | volts |

Typical operating conditions and characteristics, Class C Telegraphy §§

| | | |
|--|------|-------|
| Heater voltage | 6.3 | volts |
| Heater current | 150 | ma |
| Plate voltage. | 300 | volts |
| Grid voltage | -27 | volts |
| Plate current. | 25 | ma |
| Grid current (approx.) | 7 | ma |
| Grid driving power (approx.) | 0.35 | watts |
| Power output (approx.) | 5.5 | watts |

§§ Approximately 2.5 watts output can be obtained when the 6100 is used at 150 megacycles as an oscillator with a grid resistor of 10,000 ohms and with maximum rated input.

Refer to "Interpretation of Receiving Tube Ratings"