

DC Plate Current	50	60	mA
DC Grid-No.2 Current	2.6	3.5	mA
DC Grid-No.1 Current (Approx.)	1	1.5	mA
Driving Power (Approx.)▲▲	0.4	0.6	watt
Useful Power Output*	3	4.5	watts

As tripler to 175 MHz

Heater Voltage	13.5	13.5	volts
DC Plate Voltage	200	250	volts
Grid No.3	Connected to cathode at socket		
DC Grid No.2 Voltage	200	250	volts
DC Grid-No.1 Voltage⊕⊕	—90	—120	volts
From a grid-No.1 resistor of	50000	70000	ohms
Peak RF Grid-No.1 Voltage	105	130	volts
DC Plate Current	50	60	mA
DC Grid-No.2 Current	3	3.9	mA
DC Grid-No.1 Current (Approx.)	1.85	1.7	mA
Driving Power (Approx.)▲▲	0.4	0.6	watt
Useful Power Output*	1.4	2.3	watts

♦ Subscript 1 indicates that grid-No.1 current does not flow during any part of the input cycle.

● Continuous Commercial Service.

●● Intermittent Commercial and Amateur Service.

■ Averaged over any audio-frequency cycle of sine-wave form.

† Key-down conditions per tube without amplitude modulation. Amplitude modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

§ Obtained preferably from a fixed supply.

□ Obtained preferably from a separate source or from the plate-voltage supply with a voltage divider. If a series resistor is used, it should be adjustable to obtain the desired operating plate current after initial tuning adjustments are completed.

⊕⊕ Obtained from a grid-No.1 resistor or from a combination of grid-No.1 resistor with either fixed supply or cathode resistor.

▲▲ Driver stage is required to supply tube losses and rf-circuit losses. The driver stage should be designed to provide an excess of power above the indicated values to take care of variations in line voltage, components, initial tube characteristics, and tube characteristics during life.

* Measured at load.

▲ Obtained preferably from a separate source modulated along with the plate supply, or from the modulated plate supply through a series resistor. It is recommended that this resistor be adjustable to obtain the desired operating plate current after initial tuning adjustments are made.

★ Obtained from a grid-No.1 resistor or from a combination of grid-No.1 resistor with either fixed supply or cathode resistor. The combination of grid-No.1 resistor and fixed supply has the advantage of not only protecting the tube from damage through loss of excitation but also of minimizing distortion by bias-supply compensation.

Special Ratings & Performance Data

HEATER-CYCLING LIFE PERFORMANCE

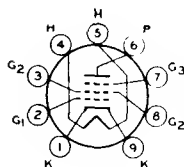
Cycles of Intermittent Operation	2000 min.	cycles
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LOW-FREQUENCY VIBRATION PERFORMANCE

RMS Output Voltage	200 max.	mV
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BEAM POWER TUBE

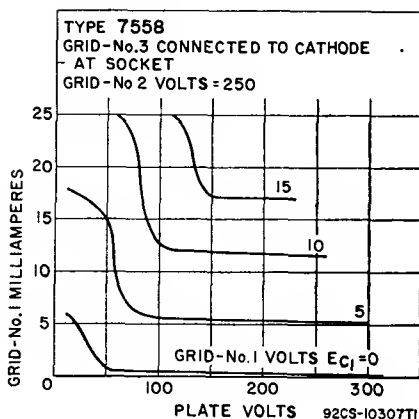
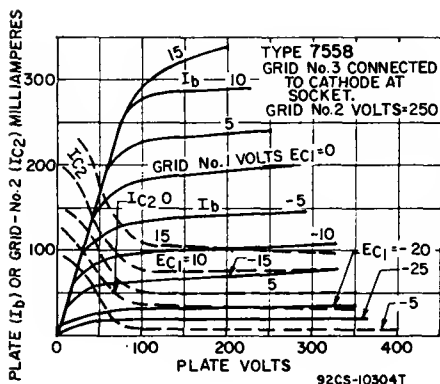
7558

INDUSTRIAL
TYPE

9LK

Miniature type for use as a class C radio-frequency amplifier, oscillator, and frequency-multiplier up to 175 MHz in mobile communications equipment. Outlines section, 6E; requires miniature 9-contact socket. This type is identical with type 7551 except for heater voltage and current. Special ratings and performance data for the 7551 do not apply to the 7558.

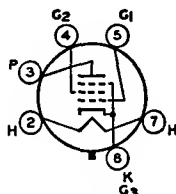
Heater Voltage	6.3 ±5%	volts
Heater Current	0.8	ampere



7581A

BEAM POWER TUBE

Glass octal type used in af power-amplifier applications. Outlines section, 19D; requires octal socket. For typical operation as push-pull class A₁, class AB₁, and class AB₂ amplifier, refer to type 6L6GC. This tube, like other power-handling tubes, should be adequately ventilated. Heater: volts (ac/dc), 6.3; amperes, 0.9; maximum heater-cathode volts, ± 200 .



7AC

Class A₁ Amplifier

MAXIMUM RATINGS (Design-Maximum Values)

Plate Voltage	450
Grid-No.2 (Screen-Grid) Voltage	—
Plate Dissipation	35
Grid-No.2 Input	—

Triode Connection*

450
—
35
—

Pentode Connection

500	volts
450#	volts
35	watts
5	watts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:	
For fixed-bias operation	0.1
For cathode-bias operation	0.5

0.1
0.5

0.1	megohm
0.5	megohm

Class A₁ Amplifier (Pentode Connection)

MAXIMUM RATINGS (Same as for Class A₁ Amplifier)

TYPICAL OPERATION

Plate Voltage	70
Grid-No.2 Voltage	300
Grid-No.1 Voltage	0A
Plate Resistance (Approx.)	—
Transconductance	—
Plate Current	210
Grid-No.2 Current	25
Load Resistance	—
Total Harmonic Distortion	—
Maximum-Signal Power Output	—

250	volts
250	volts
—14	volts
22500	ohms
6000	μmhos
72	mA
5	mA
2500	ohms
10	per cent
6.5	watts

Class A₁ Amplifier (Triode Connection)

MAXIMUM RATINGS (Same as for Class A₁ Amplifier)

TYPICAL OPERATION

Plate Voltage	250
Grid-No.1 Voltage	—20
Peak AF Grid-No.1 Voltage	20

250	volts
—20	volts
20	volts