Type 6669/6AQ5 is designed specifically for use in mobile communications equipment. The 6669/6AQ5 may be operated without serious degradation under normal variations in supply voltage as encountered with automotive electrical systems. Also consistent with the requirements of the equipment, the tube is capable of withstanding appreciable on-off cycling.

MECHANICAL DATA

Bulb	T-5½
Base	E7-1, Miniature Button 7-Pin
Outline	5-3
Basing	7BZ
Cathode	Coated Unipotential
Mounting Position	Any

ELECTRICAL DATA

HEATER CHARACTERISTICS

Heater Voltage[1]	6.3 Volts	
Heater Current	450 Ma	
Heater-Cathode Voltage (Design Maximum Values)		
Heater Negative with Respect to Cathode	100 Volts	Max.
Heater Positive with Respect to Cathode	100 Volts	Max.

DIRECT INTERELECTRODE CAPACITANCES (Unshielded)

Grid to Plate	0.4 μμf
Input: g1 to (h+k+g2+g3)	8.0 μμf
Output: p to (h+k+g2+g3)	8.5 μμf

RATINGS (Design Maximum Values)

Class A1 Amplifier

Plate Voltage	250 Volts	Max.
Grid No. 2 Voltage	250 Volts	Max.
Plate Dissipation	12 Watts	Max.
Grid No. 2 Dissipation	2 Watts	Max.
Grid No. 1 Circuit Resistance		
Fixed Bias	0.1 Megohm	Max.
Cathode Bias	0.5 Megohm	Max.
Bulb Temperature (At Hottest Point)	225 °C	Max.

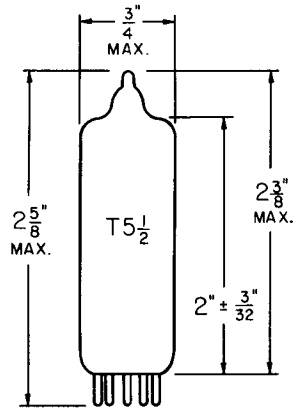
CHARACTERISTICS AND TYPICAL OPERATION

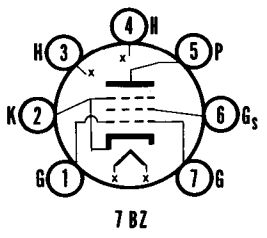
	Single Tube Class A1		Push-Pull Class AB1	
Plate Voltage	180	250	250	Volts
Grid No. 2 Voltage	180	250	250	Volts
Grid No. 1 Voltage	−8.5	−12.5	−15	Volts
Peak AF Grid No. 1 Voltage	8.5	12.5	15	Volts
Zero—Signal Plate Current	29	45	70	Ma
Maximum Signal Plate Current	30	47	79	Ma
Zero—Signal Grid No. 2 Current	3	4.5	5	Ma
Maximum—Signal Grid No. 2 Current	4	7.0	13	Ma
Plate Resistance (Approx.)	58,000	52,000	—	Ohms
Transconductance	3700	4100	—	μmhos
Load Resistance	5500	5000	—	Ohms
Load Resistance (P1 to P1)	—	—	10,000	Ohms
Maximum Signal Power Output	2.0	4.5	10	Watts
Total Harmonic Distortion (Approx.)	8	8	5	Percent

QUICK REFERENCE DATA

Sylvania Type 6669/6AQ5 is designed specifically for mobile operation. It is a T-5½ beam power pentode intended for use as an audio power amplifier.

Type 6669/6AQ5 possesses electrical characteristics essentially equivalent to Type 6AQ5.





7BZ

SYLVANIA
ELECTRONIC TUBES
A Division of
Sylvania Electric Products Inc.
RECEIVING TUBE
OPERATIONS
EMPORIUM, PA.

Prepared and Released By The
TECHNICAL PUBLICATIONS SECTION
EMPORIUM, PENNSYLVANIA

MAY, 1961

File Under
RECEIVING TUBES

SPECIAL TESTS AND RATINGS

Heater-Cycling Life Test

Statistical sample operated for 2000 cycles to evaluate and control heater-cathode defects. Condition of test include Ef = 7.5 volts cycled for one minute on and one minute off, Eb + Ec2 + Ec1 = 0 volts and Ehk = 135 volts with heater positive with respect to cathode.

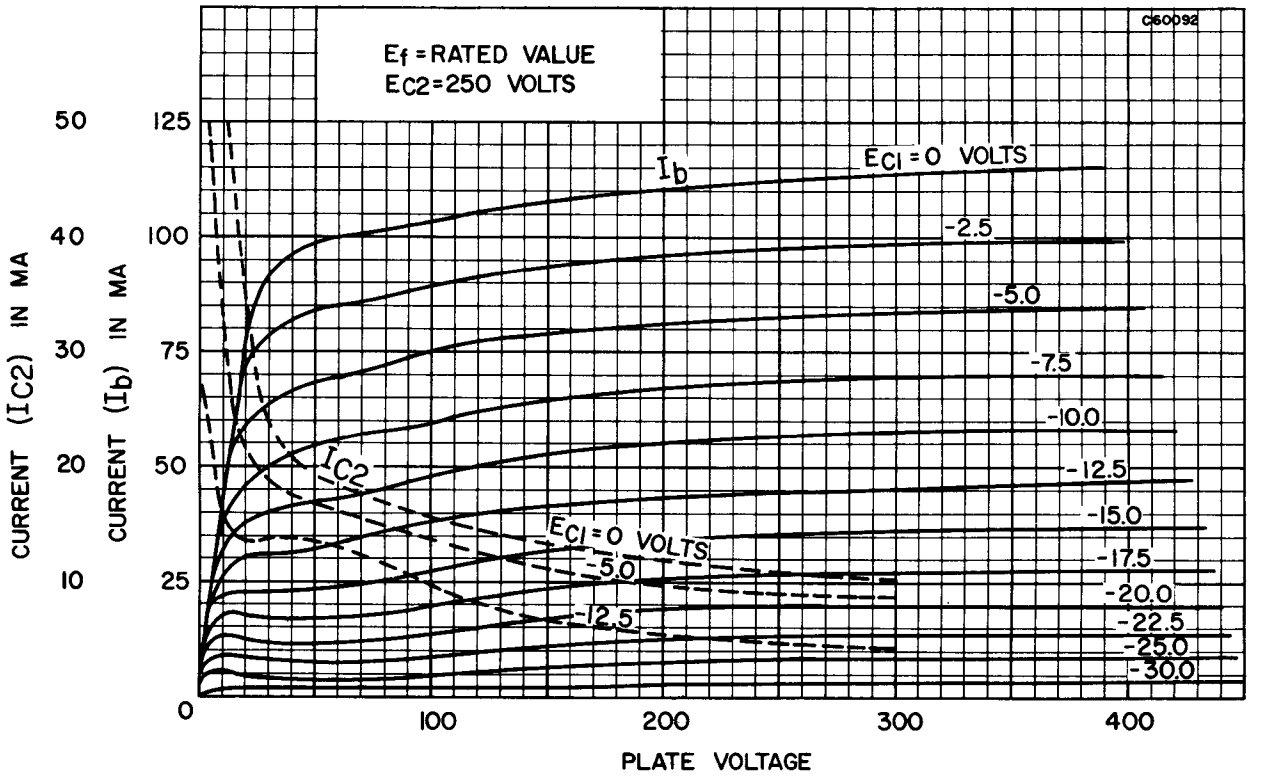
Average Power Output at Reduced Heater Voltage . . . . . 4.1 Watts

Ef = 5.0 volts, Eb = 250 volts, Ec2 = 250 volts, Ec1 = −12.5 volts, R1 = 5000 ohms, Esig = 8.8 volts (RMS).

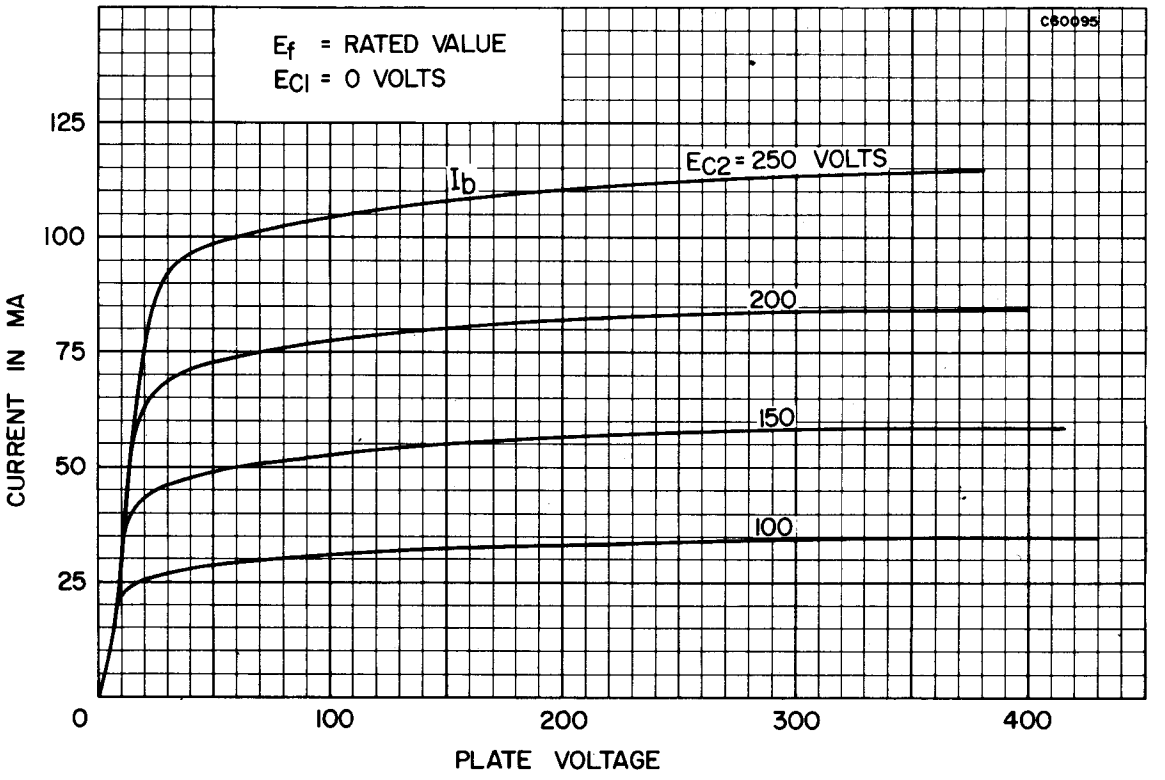
NOTES:

1. *When operated from automotive electrical systems, the heater may be subjected to voltage variations as great as ±2(percent. Although such extremes in heater-voltage may be tolerated for short periods, increased equipment reliability ca be achieved with improved supply-voltage regulation.*

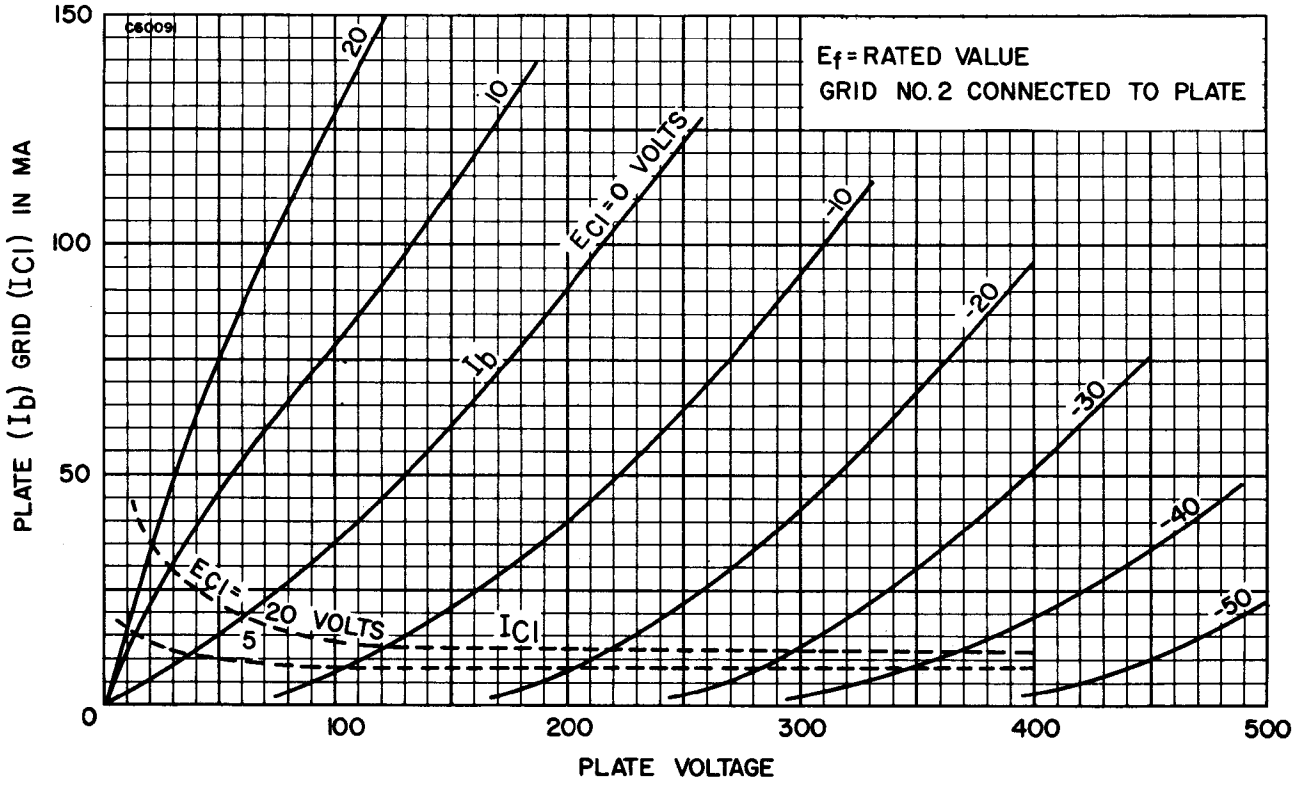
AVERAGE PLATE CHARACTERISTICS



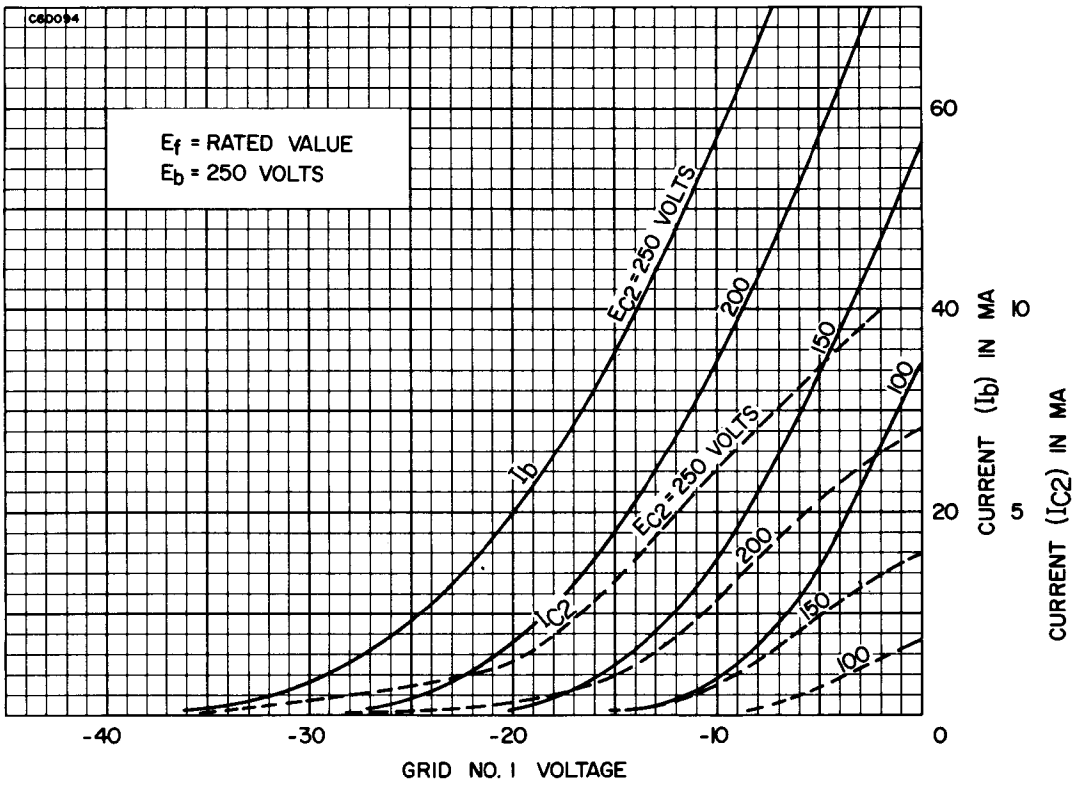
AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS
(Triode Connected)



AVERAGE TRANSFER CHARACTERISTICS



OPERATION CHARACTERISTICS