

POWER PENTODE TYPE 6GK6

The 6GK6 is a 9-pin miniature power pentode designed for service as an audio or video output amplifier. It is intended for television receivers and combines high power sensitivity and plate efficiency with low distortion, low driving voltage requirements and low grid-plate capacitance.

ELECTRICAL

Cathode.....	Coated Unipotential
Heater:	
Voltage.....	6.3 Volts
Current.....	0.76 Ampere
Direct Interelectrode Capacitances:	
Grid 1 to Plate.....	0.14 max. pf
Plate to All Other Elements.....	7.0 pf
Grid 1 to All Other Elements.....	10.0 pf

MECHANICAL

Bulb.....	T-6½
Base.....	Miniature 9-Pin (JEDEC E9-1)
Basing.....	9GK
Mounting Position.....	Any

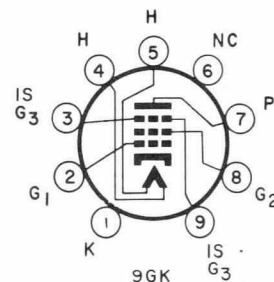
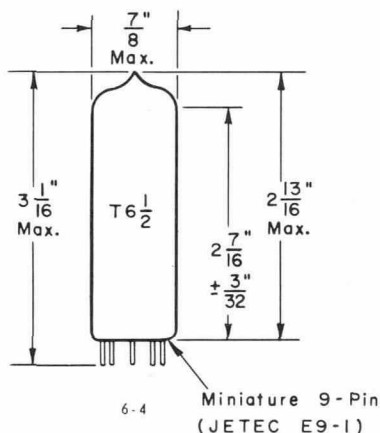
MAXIMUM RATINGS

Design Maximum Values	AC Line Power Supply	Vibrator Power Supply		
Plate Voltage.....	330	275	max.	Volts
Grid 2 Voltage.....	330	275	max.	Volts
Plate Dissipation.....	13.2	9.9	max.	Watts
Cutoff Operation:				
Plate Voltage.....		605	max.	Volts
Grid 2 Voltage.....		605	max.	Volts
Grid 2 Dissipation.....		2	max.	Watts
Grid 1 Negative Voltage.....		100	max.	Volts
Grid 1 Voltage for				
Grid 1 Current of 0.3 μampere.....		-1.3	max.	Volts
Cathode Current.....		65	max.	Ma
Heater Cathode Voltage.....		±100	max.	Volts
Grid 1 Circuit Values:				
Fixed Bias.....		0.3	max.	Megohm
Cathode Resistor Bias.....		1.0	max.	Megohm

CLASS A AMPLIFIER (one tube)

TYPICAL OPERATING CHARACTERISTICS

Plate Voltage.....	250	Volts
Grid 2 Voltage.....	250	Volts
Grid 1 Voltage.....	-7.3	Volts
or Cathode Bias Resistor.....	135	Ohms
Plate Load Impedance.....	5200	Ohms
Plate Current (Zero Signal).....	48	Ma
Grid 2 Current (Zero Signal).....	5.5	Ma
Transconductance.....	11300	μmhos
Plate Resistance.....	38000	Ohms
Amplification Factor (Grid 2 to Grid 1).....	19	-
Power Output.....	5.7	Watts
Distortion (Total Harmonic).....	10	Percent



PUSH-PULL CLASS AB AMPLIFIER

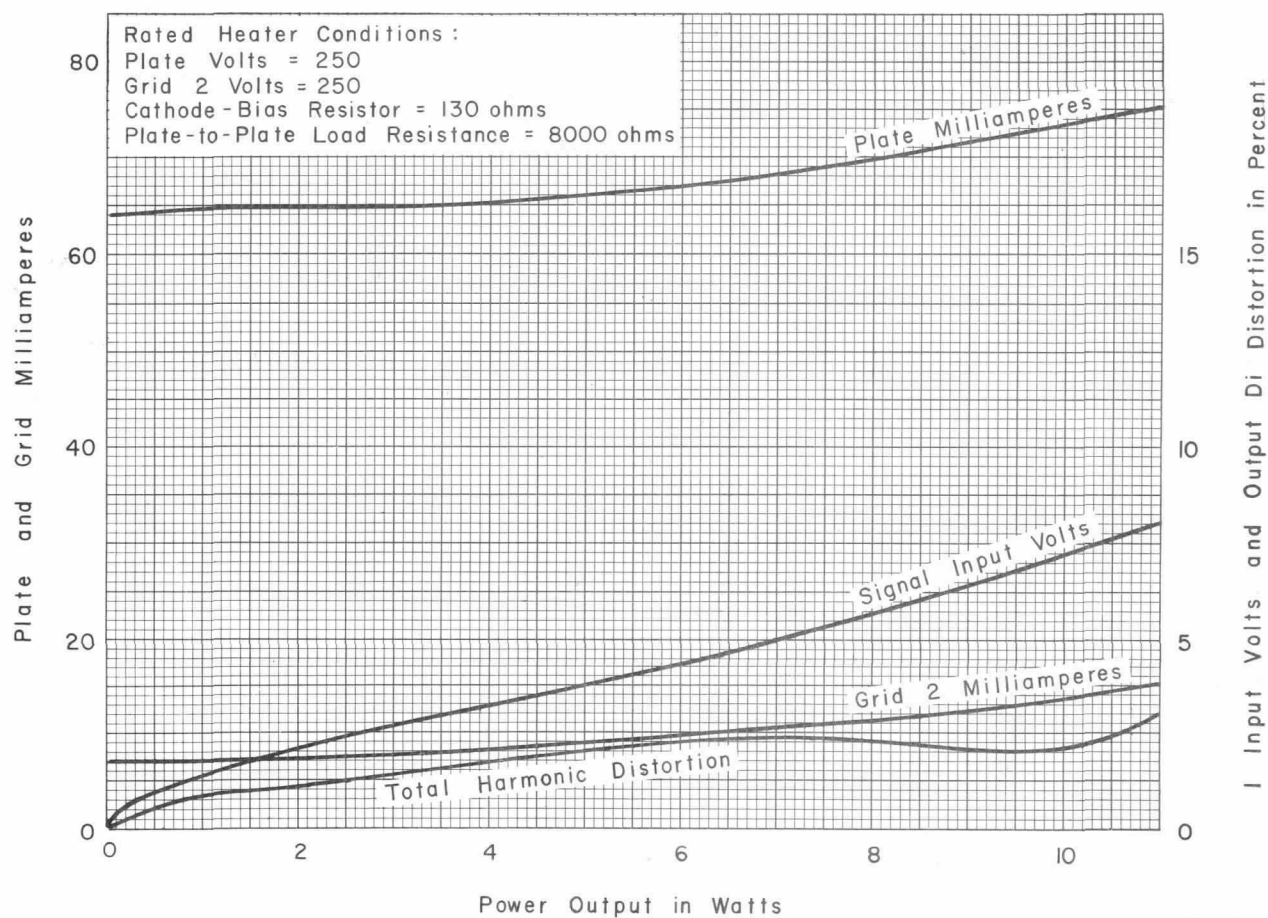
TYPICAL OPERATING CHARACTERISTICS

Plate Voltage	250	300	Volts
Grid 2 Voltage	250	300	Volts
Common Cathode Bias Resistor	130	130	Ohms
Plate-to-Plate Load Impedance	8000	8000	Ohms
RMS Input AF Voltage	8	10	Volts
Plate Current (Zero Signal)	62	72	Ma.
Plate Current (Max. Signal)	75	92	Ma.
Grid 2 Current (Zero Signal)	7	8	Ma.
Grid 2 Current (Max. Signal)	15	22	Ma.
Power Output	11	17	Watts
Total Harmonic Distortion	3	4	Percent

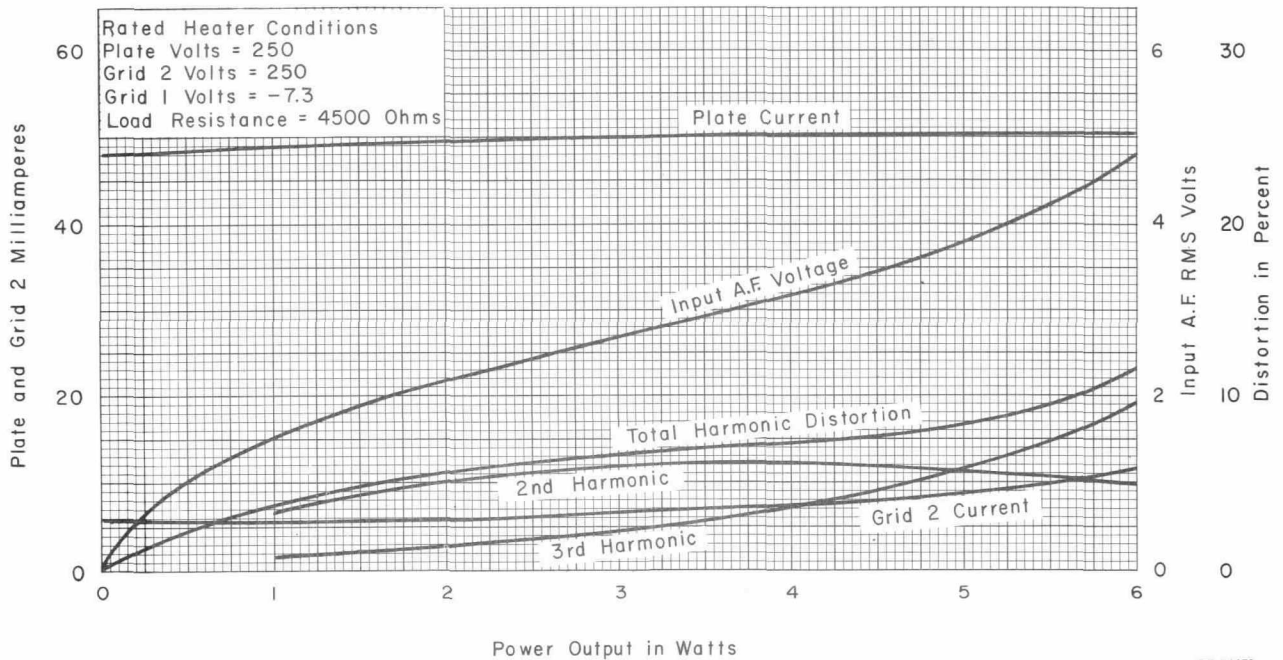
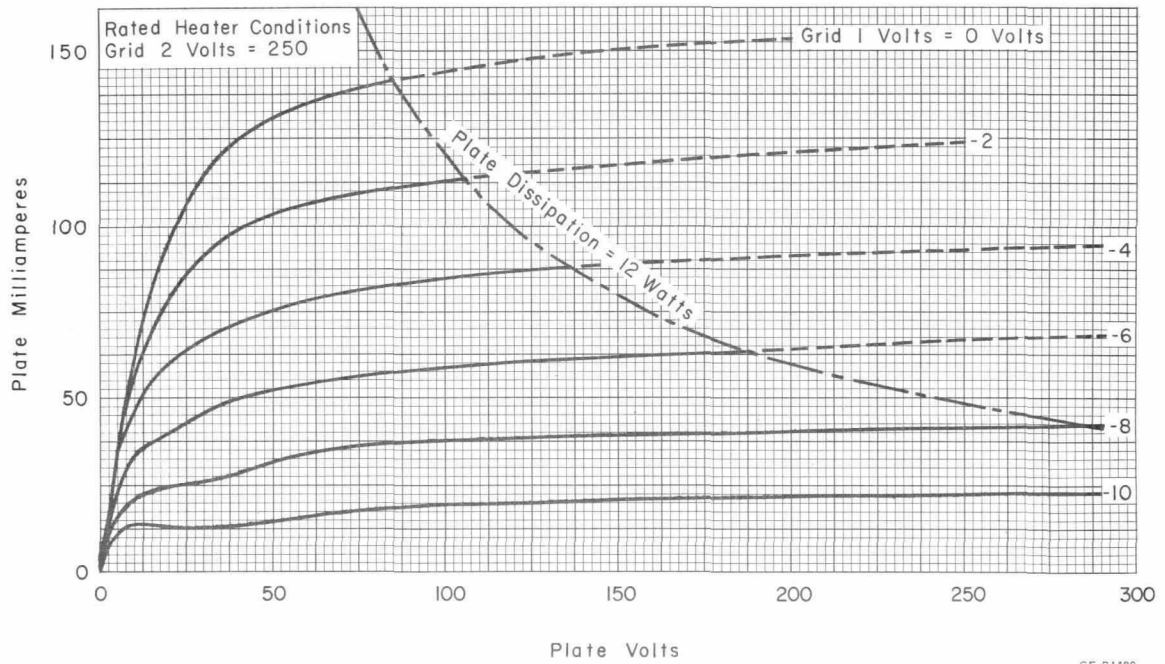
PUSH-PULL CLASS B AMPLIFIER

TYPICAL OPERATING CHARACTERISTICS

Plate Voltage	250	300	Volts
Grid 2 Voltage	250	300	Volts
Grid 1 Bias Voltage	-11.6	-14.7	Volts
Plate-to-Plate Load Impedance	8000	8000	Ohms
RMS Input AF Voltage	8	10	Volts
Plate Current (Zero Signal)	20	15	Ma.
Plate Current (Max. Signal)	75	92	Ma.
Grid 2 Current (Zero Signal)	2.2	1.6	Ma.
Grid 2 Current (Max. Signal)	15	22	Ma.
Power Output	11	17	Watts
Total Harmonic Distortion	3	4	Percent

OPERATING CHARACTERISTICS
PUSH - PULL CLASS AB

CE-B1476



AVERAGE TRANSFER CHARACTERISTICS

