

## 7-PIN

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### 6AS5

#### Maximum Ratings (Design Center Values)

##### Beam Pentode

Plate Voltage .....	150 V
Grid No. 2 Voltage .....	117 V
Plate Dissipation .....	5.5 W
Grid No. 2 Dissipation .....	1.0 W
Grid No. 1 Circuit Resistance	
Fixed Bias .....	100K $\Omega$
Self Bias .....	500K $\Omega$
Bulb Temperature (At Hottest Point) .....	250 °C

#### Characteristics and Typical Operation

##### Class A Amplifier

Plate Voltage .....	150 V
Grid No. 2 Voltage .....	110 V
Grid No. 1 Voltage .....	-8.5 V
Peak Grid No. 1 Voltage.....	8.5 V
Transconductance .....	5600 $\mu\text{S}$
Plate Current (Zero Signal) .....	35 mA
Plate Current (Maximum Signal) .....	36 mA
Grid No. 2 Current (Zero Signal) .....	2 mA
Grid No. 2 Current (Maximum Signal) .....	6.5 mA
Load Resistance .....	4.5K $\Omega$
Power Output (approx) .....	2.2 W
Total Harmonic Distortion .....	10 %

### 6CU5

#### Maximum Ratings (Design Center Values)

##### Beam Pentode

Plate Voltage .....	150 V
Grid No. 2 Voltage .....	130 V
Plate Dissipation .....	7 W
Grid No. 2 Dissipation .....	1.4 W

#### Characteristics and Typical Operation

##### Class A Amplifier

Plate Voltage .....	120 V
Grid No. 2 Voltage .....	110 V
Grid No. 1 Voltage .....	-8 V
Plate Resistance (approx) .....	10K $\Omega$
Transconductance .....	7500 $\mu\text{S}$
Plate Current .....	50 mA
Grid No. 2 Current (Zero Signal) .....	4 mA
Grid No. 2 Current (Maximum Signal) .....	8.5 mA
Load Resistance .....	2.5K $\Omega$
Power Output (approx) .....	2.3 W

## 6CA5

### Maximum Ratings (Design Center Values)

#### Beam Pentode

Plate Voltage .....	130 V
Grid No. 2 Voltage .....	130 V
Plate Dissipation .....	5.0 W
Grid No. 2 Dissipation .....	1.4 W

### Characteristics and Typical Operation

#### Class A Amplifier

Plate Voltage .....	125 V
Grid No. 2 Voltage .....	125 V
Grid No. 1 Voltage .....	-4.5 V
Peak Grid No. 1 Voltage.....	4.5 V
Amplification Factor .....	37
Plate Resistance (approx) .....	15K $\Omega$
Transconductance .....	9200 $\mu\text{S}$
Plate Current (Zero Signal) .....	37 mA
Plate Current (Maximum Signal) .....	36 mA
Grid No. 2 Current (Zero Signal) .....	4 mA
Grid No. 2 Current (Maximum Signal) .....	11 mA
Load Resistance .....	4.5K $\Omega$
Power Output (approx) .....	1.5 W

### Characteristics and Typical Operation

#### Class A Amplifier

Plate Voltage .....	110 V
Grid No. 2 Voltage .....	110 V
Grid No. 1 Voltage .....	-4 V
Peak Grid No. 1 Voltage.....	4 V
Plate Resistance (approx) .....	16K $\Omega$
Transconductance .....	8100 $\mu\text{S}$
Plate Current (Zero Signal) .....	32 mA
Plate Current (Maximum Signal) .....	31 mA
Grid No. 2 Current (Zero Signal) .....	3.5 mA
Grid No. 2 Current (Maximum Signal) .....	7.5 mA
Load Resistance .....	3.5K $\Omega$
Power Output (approx) .....	1.1 W

## 6EH5

### Maximum Ratings (Design Center Values)

#### Pentode

Plate Voltage .....	150 V
Grid No. 2 Voltage .....	130 V
Plate Dissipation .....	5.5 W
Grid No. 2 Dissipation .....	2 W

### Characteristics and Typical Operation

#### Class A Amplifier

Plate Voltage .....	135 V
Grid No. 2 Voltage .....	117 V
Grid No. 1 Voltage .....	0 V
Plate Resistance (approx) .....	11K $\Omega$
Transconductance .....	14.6K $\mu\text{S}$
Plate Current .....	42 mA
Grid No. 2 Current .....	14.5 mA
Load Resistance .....	3K $\Omega$
Power Output (approx) .....	1.4 W

### Characteristics and Typical Operation

#### Class A Amplifier

Plate Voltage .....	110 V
Grid No. 2 Voltage .....	115 V
Grid No. 1 Voltage Derived from Cathode Bias Resistor .....	62 $\Omega$
Peak Grid No. 1 Voltage .....	3 V
Plate Resistance (approx) .....	11K $\Omega$
Transconductance .....	14.6K $\mu\text{S}$
Plate Current (Zero Signal) .....	42 mA
Plate Current (Maximum Signal) .....	42 mA
Grid No. 2 Current (Zero Signal) .....	11.5 mA
Grid No. 2 Current (Maximum Signal) .....	14.5 mA
Load Resistance .....	3K $\Omega$
Power Output (approx) .....	1.4 W

## 6GZ5

### Maximum Ratings (Design Center Values)

#### Pentode

Plate Voltage .....	300 V
Grid No. 2 Voltage .....	300 V
Plate Dissipation .....	4.8 W
Grid No. 2 Dissipation .....	1.1 W

### Characteristics and Typical Operation

#### Class A Amplifier

Plate Voltage .....	250 V
Grid No. 2 Voltage .....	250 V
Grid No. 1 Voltage Derived from Cathode Bias Resistor .....	270 $\Omega$
Plate Resistance (approx) .....	150K $\Omega$
Transconductance .....	8400 $\mu\text{S}$
Plate Current .....	16 mA
Grid No. 2 Current .....	2.7 mA
Load Resistance .....	15K $\Omega$
Power Output (approx) .....	1.1 W