

MECHANICAL DATA

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

HEATER CHARACTERISTICS

Heater Voltage ¹	12.6 Volts
Heater Current	450 Ma
Heater-Cathode Voltage (Design Center Values)	
Heater Negative with Respect to Cathode	
Total DC and Peak	30 Volts Max.
Heater Positive with Respect to Cathode	
Total DC and Peak	30 Volts Max.

RATINGS (Design Center Values—except as noted)

Plate Voltage	30 Volts Max.
Positive Grid No. 1 Voltage	16 Volts Abs. Max.
Grid No. 1 Supply Voltage	30 Volts Max.
Negative Grid No. 2 Voltage	-20 Volts Max.
Grid No. 2 Circuit Resistance	2.2 Megohms Max.

CHARACTERISTICS

Plate Voltage	12.6 Volts
Grid No. 2 (Control Grid) Voltage	-2.0 Volts
Grid No. 1 (Space-charge Grid) Voltage	+12.6 Volts
Plate Current	8.0 Ma
Grid No. 1 (Space-charge Grid) Current	85.0 Ma
Plate Resistance	800 Ohms
Amplification Factor (Grid No. 2 to Plate)	5.6
Transconductance (Grid No. 2 to Plate)	7000 μmhos

TYPICAL OPERATION

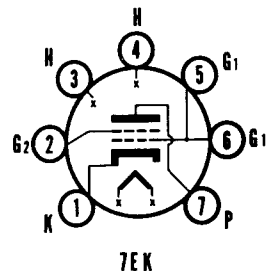
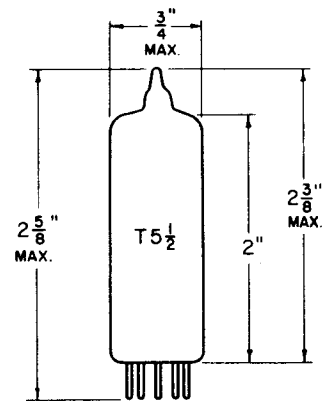
Plate Voltage	12.6 Volts
Grid No. 2 (Control Grid) Voltage ²	-2.0 Volts
Grid No. 1 (Space-charge Grid) Voltage	+12.6 Volts
Peak AF Grid No. 2 Voltage	2.5 Volts
AF Signal Source Resistance	100000 Ohms
Load Resistance	800 Ohms
Plate Current	8.0 Ma
Grid No. 1 (Space-charge Grid) Current	85 Ma
Power Output	35 Mw
Total Harmonic Distortion	10 Percent

NOTES:

1. When used in automotive service from a 12-volt source, under no circumstances should the heater voltage be less than 10.0 volts or more than 15.9 volts. These extreme variations in heater voltage may be tolerated for short periods; however, operation at or near these absolute limits in heater voltage necessarily involves sacrifice in performance at low heater voltage and in life expectancy at high heater voltage.
2. Obtained by Grid No. 2 rectification in which case the zero signal plate current is approximately 35 Ma.

QUICK REFERENCE DATA

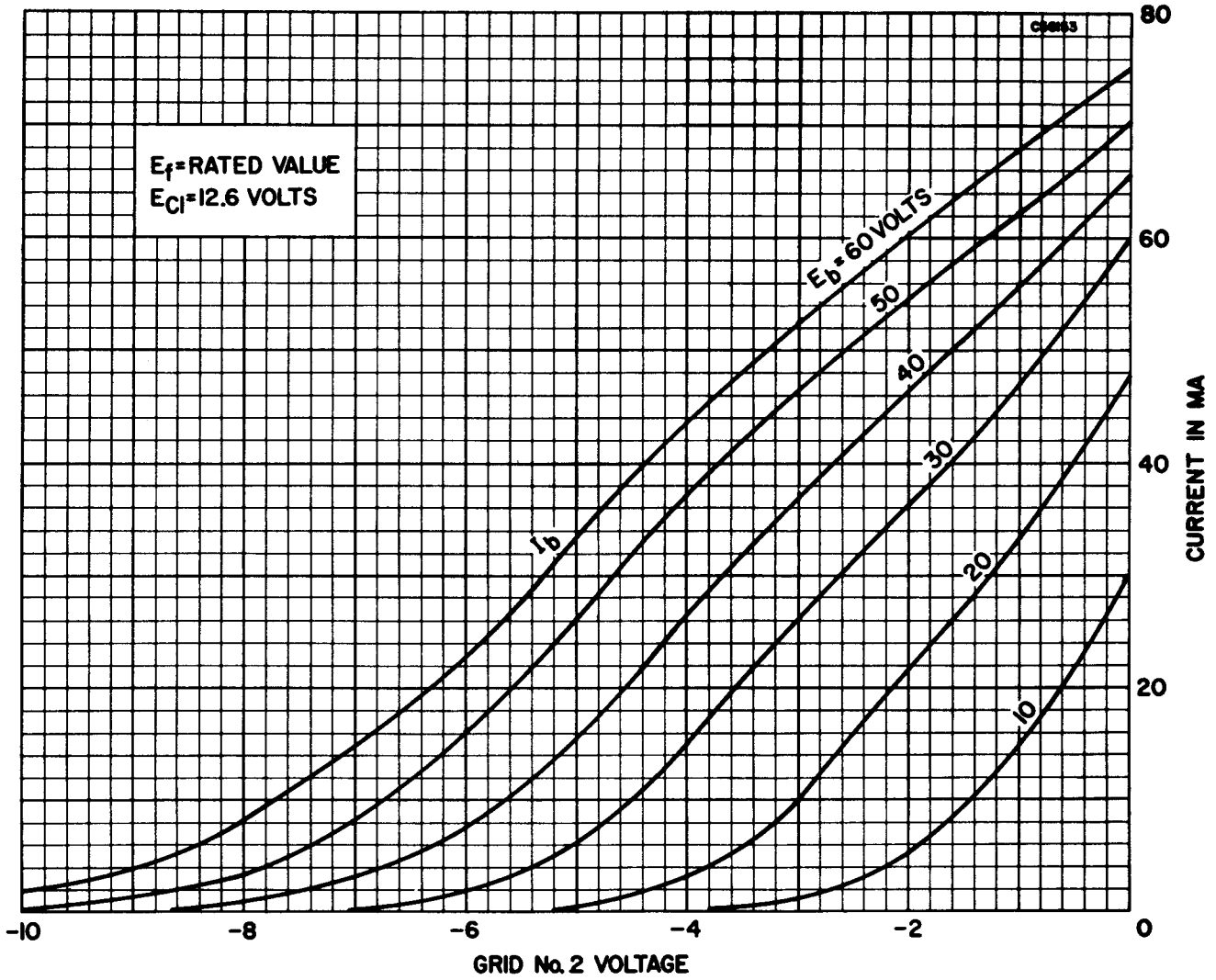
The Sylvania Type 12K5 is a tetrode designed for space-charge operation. It is intended for service as a power amplifier driver where the potentials are obtained directly from a 12 volt automobile battery.



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AVERAGE TRANSFER CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS

