



**PENTODE  
MINIATURE**

*Western Electric*

**DESCRIPTION**

The 6AK5/403A\* is a 7-pin miniature pentode having an indirectly heated cathode. It is designed for use in amplifier circuits at high and ultra high frequencies.

**CHARACTERISTICS**

Heater Voltage . . . . .	6.3 volts
Plate Current . . . . .	7.5 milliamperes
Transconductance . . . . .	5000 micromhos

{  $E_b = E_{c2} = 120$  volts; }  
{ Cathode-Bias Resistor = 200 ohms }

**GENERAL CHARACTERISTICS**

**ELECTRICAL DATA**

Heater Voltage, A-C or D-C . . . . .		6.3 volts
Heater Current . . . . .		175 milliamperes
Direct Interelectrode Capacitances . . . . .	without external shield	with external shield (RMA #316)
Grid to Plate (maximum) . . . . .	.019	*.010 uuf
Input . . . . .	3.9	*4.0 uuf
Output . . . . .	2.0	*2.9 uuf

**MECHANICAL DATA**

Cathode . . . . .	Coated Unipotential
Bulb . . . . .	T5½
Base . . . . .	Miniature Button 7-pin
Mounting Position . . . . .	Any

Dimensions and pin connections shown in outline drawing on Page 4

**MAXIMUM RATINGS, Design-Center Values**

Plate Voltage . . . . .	180 volts
Screen Grid Voltage . . . . .	140 volts
Plate Dissipation . . . . .	1.7 watts
Screen Grid Dissipation . . . . .	0.5 watt
Cathode Current . . . . .	18 milliamperes
Heater-Cathode Voltage . . . . .	90 volts
Bulb Temperature . . . . .	120 centigrade

**TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS — CLASS A<sub>1</sub> AMPLIFIER**

Plate Voltage . . . . .	120	150	180 volts
Screen Grid Voltage . . . . .	120	140	120 volts
Cathode-Bias Resistor . . . . .	200	330	200 ohms
Plate Current . . . . .	7.5	6.6	7.7 milliamperes
Screen Grid Current . . . . .	2.5	2.1	2.4 milliamperes
Plate Resistance . . . . .	0.30	0.40	0.45 megohm
Transconductance . . . . .	5000	4500	5100 micromhos
Grid Voltage, Approximate, for Plate Current of 10 Microamperes . . . . .	-6.8	-7.8	-6.9 volts

\*External shield connected to cathode pins 2 and 7.

