



ELECTRONIC TUBE REFERENCE

409A

Voltage - Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Miniature triple-grid pentode for low-power HF/UHF applications, with independently controllable suppressor grid supporting gating, mixing, and modulation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	E7-1	BASE PINS	7
NOMINAL HEATER	6.3 V / 175 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
TRANSCONDUCTANCE	0.00185 S
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	140 V
MAXIMUM PLATE DISSIPATION	1.7 W
MAXIMUM SCREEN DISSIPATION	0.75 W
MAXIMUM CATHODE CURRENT	18 mA
<i>Promoted fields mapped from printed maximum-rating and characteristic headings; additional published values preserved in parameter rows.</i>	

The 6AS6/409A is a 7-pin miniature triple-grid pentode with an indirectly heated cathode, intended for low-power high- and ultra-high-frequency applications; its suppressor grid can serve as an independent control element.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

2026 Western Electric 400s

Published test conditions and operating points. Values on this page are preserved as reported by this source.

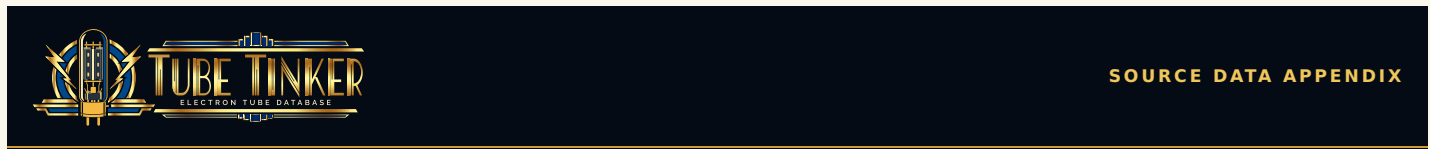
2026 WESTERN ELECTRIC 400S

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate dissipation	1.7 watts	Plate dissipation 1.7 watts
Sereen dissipation	75 watt	Sereen dissipation 0,75 watt

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode current	18 milliamperes	Cathode current 18 milliamperes
Heater-cathode voltage	90 volts	Heater-cathode voltage 90 volts
Plate voltage	120 volts	Plate voltage 120 120 volts
Sereen voltage	120 volts	Sereen voltage 120 120 volts
Suppresser voltage	-3 volts	Suppresser voltage -3 0 volts
Grid voltage	-2 volts	Grid voltage -2 = 2 volts
Sereen current	4.8 milliamperes	. Sereen current 4.8 3.5 milliamperes
Plate voltage	120 volts	Plate voltage 120 volts Plate voltage 120 120 volts
Screen voltage	120 volts	. Screen voltage 120 volts Sereen voltage 120 60 volts
Suppressor voltage	0 volts	Suppressor voltage 0 volts Grid voltage - 2 0 volts
SCREEN VOLTAGE=	120 VOLTS	SCREEN VOLTAGE=120 VOLTS fe—— 14
Ef=	63 VOLTS	Ef=63 VOLTS PLATE VOLTAGE=120 VOLTS ft =6.3 VOLTS Eci=n
H Eci=-i o SCREEN VOLTAGE	120 VOLTS	H Eci=-i o SCREEN VOLTAGE 120 VOLTS
" Ef=	63 VOLTS	" Ef=63 VOLTS Eciz - \ SCREEN VOLTAGE<120VOLTS
W	5000 VOLTS	W 5000 PLATE VOLTAGE =120 VOLTS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID VOLTAGE. $E_c = \sim / E$	63 VOLTS	GRID VOLTAGE. $E_c = \sim / E_4 = 63$ VOLTS
Published value	1400 VOLTS	1400 AN PLATE VOLTAGE = 120 VOLTS
/ \ SCREEN VOLTAGE = i	20 VOLTS	/ \ SCREEN VOLTAGE = i 20 VOLTS



SOURCE OPERATING CONDITIONS

2026 Western Electric Other

Published test conditions and operating points. Values on this page are preserved as reported by this source.

2026 WESTERN ELECTRIC OTHER

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	A-C or D-C
Heater Current Nominal	175 mA	Nominal
Plate Voltage Maximum	180 V	Design-center value
Screen Voltage Maximum	140 V	Design-center value
Positive Suppressor Voltage Maximum	27 V	Design-center value
Plate Dissipation Maximum	1.7 W	Design-center value
Screen Dissipation Maximum	0.75 W	Design-center value
Cathode Current Maximum	18 mA	Design-center value
Heater-Cathode Voltage Maximum	90 V	Design-center value
Bulb Temperature Maximum	120 degC	Design-center value
Plate Voltage	120 V	Suppressor -3 V
Screen Voltage	120 V	Suppressor -3 V
Suppressor Voltage	-3 V	Operating column 1
Control Grid Voltage	-2 V	Operating column 1
Plate Voltage	120 V	Suppressor 0 V
Screen Voltage	120 V	Suppressor 0 V
Suppressor Voltage	0 V	Operating column 2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Control Grid Voltage	-2 V	Operating column 2

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	3.6 mA	Operating column 1
Screen Current	4.8 mA	Operating column 1
Control-Grid Transconductance	1850 μ S	Operating column 1
Suppressor-Grid Transconductance	810 μ S	Operating column 1
Plate Current	5.2 mA	Operating column 2
Screen Current	3.5 mA	Operating column 2
Control-Grid Transconductance	3200 μ S	Operating column 2
Suppressor-Grid Transconductance	470 μ S	Operating column 2
Control-Grid Cutoff Nominal	-6 V	Plate 120 V; screen 120 V; suppressor 0 V
Control-Grid Cutoff Guaranteed	-10 V	Plate 120 V; screen 120 V; suppressor 0 V
Suppressor-Grid Cutoff Nominal	-10 V	Plate 120 V; screen 120 V; control grid -2 V
Suppressor-Grid Cutoff Guaranteed	-15 V	Plate 120 V; screen 120 V; control grid -2 V

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Control-grid to heater/cathode/screen/suppressor capacitance	3.9 pF	JAN 1A No. 314 shield connected to cathode
Plate to control-grid capacitance	0.01 pF	JAN 1A No. 314 shield connected to cathode
Plate to heater/cathode/screen/suppressor capacitance	3 pF	JAN 1A No. 314 shield connected to cathode
Control-grid to suppressor-grid capacitance	0.1 pF	JAN 1A No. 314 shield connected to cathode

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

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