

Dual Triode

With High-Mu Unit and Medium-Mu Unit

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Heater arrangement	Series	Parallel	
Voltage (AC or DC)	12.6	$6.3 \pm 10\%$	volts
Current	$0.15 \pm 6\%$	0.3	amp

Direct Interelectrode Capacitances (Approx.):

	Without External Shield	With External Shield ^a	
<i>Unit No. 1:</i>			
Grid to plate	1.7	1.7	μf
Grid to cathode and heater. . .	1.6	1.8	μf
Plate to cathode and heater . .	0.37	2.2	μf
<i>Unit No. 2:</i>			
Grid to plate	1.4	1.4	μf
Grid to cathode and heater. . .	1.8	2	μf
Plate to cathode and heater . .	0.33	1.6	μf

Equivalent-Noise and Hum Voltage (Referenced to Grid):

Values are for Unit No. 1

Average Value (RMS) 1.8 microvolts

Measured in "true rms" units under the following conditions:
 heater volts = 6.3 ac (parallel connection), center-tap of
 heater transformer connected to ground, dc plate supply volts
 = 250, plate load resistor (megohms) = 0.1, cathode resistor
 (ohms) = 2700, cathode-bypass capacitor (μf) = 100, grid
 resistor (ohms) = 0, and amplifier covering frequency range
 between 25 and 10,000 cps.

Maximum Value (RMS) 7 microvolts

Measured in "true rms" units under the same conditions as
 for "Average Value" except that the cathode resistor is
 unbypassed, and grid resistor (megohms) = 0.05.

Characteristics, Class A₁ Amplifier:

	Unit No. 1		Unit No. 2		
Plate Voltage	100	250	100	250	volts
Grid Voltage	-1	-2	0	-8.5	volts
Amplification Factor	100	100	20	17	
Plate Resistance (Approx.) . .	80000	62500	6500	7700	ohms
Transconductance	1250	1600	3100	2200	μmhos
Plate Current	0.5	1.2	11.8	10.5	ma
Grid Voltage (Approx.) for plate $\mu\text{a} = 10$	-	-	-	-24	volts



Mechanical:

Operating Position. Any
 Maximum Overall Length. 2-3/16"
 Maximum Seated Length. 1-15/16"
 Length, Base Seat to Bulb Top (Excluding tip). . 1-9/16" $\pm$ 3/32"
 Diameter. 0.750" to 0.875"
 Dimensional Outline. See *General Section*
 Bulb. T6-1/2
 Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW. 9A

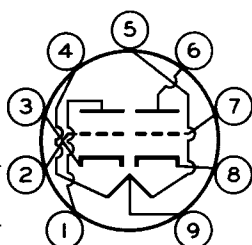
Pin 1 - Plate of
Unit No.2

Pin 2 - Grid of
Unit No.2

Pin 3 - Cathode of
Unit No.2

Pins 4 & 9 - Heater of
Unit No.2

Pins 5 & 9 - Heater of
Unit No.1



Pin 6 - Plate of
Unit No.1

Pin 7 - Grid of
Unit No.1

Pin 8 - Cathode of
Unit No.1

Pin 9 - Heater Tap

AMPLIFIER— Class A₁**Maximum Ratings, Design-Maximum Values:**

	Unit No.1		Unit No.2		
PLATE VOLTAGE.	330	max.	330	max.	volts
GRID VOLTAGE:					
Negative-bias value.	55	max.	55	max.	volts
Positive-bias value.	0	max.	0	max.	volts
CATHODE CURRENT.	—		22	max.	ma
PLATE DISSIPATION.	1.2	max.	3	max.	watts
PEAK HEATER-CATHODE VOLTAGE:					
Heater negative with respect to cathode	200	max.	200	max.	volts
Heater positive with respect to cathode	200 ^b	max.	200 ^b	max.	volts

Maximum Circuit Values:

	Unit No.1		Unit No.2		
Grid-Circuit Resistance:					
For fixed-bias operation	15	max.	0.5	max.	megohms
For cathode-bias operation	—		1	max.	megohm

^a With external shield JEDEC No.315 connected to cathode of unit under test.

^b The dc component must not exceed 100 volts.