

Amperex® ELECTRONIC CORPORATION
230 DUFFY AVENUE, HICKSVILLE, L. I., N. Y.

**TUBE TYPE
8457**

The 8457 is a twin tetrode for use as a Class C amplifier and oscillator, frequency multiplier and modulator for frequencies up to 200 Mc. The total anode dissipation is 14 watts, ICAS. The cathode is oxide coated, indirectly heated.

The tube is internally neutralized. The heater is designed to withstand battery voltage fluctuations encountered in mobile service. The tube is capable of delivering 16 watts out at 200 Mc, under ICAS conditions.

GENERAL CHARACTERISTICS

MECHANICAL

Bulb	T 6-1/2
Base	small button, 9 pin
Mounting Position	any ¹
Cooling	radiation and convection (use of closed can is not allowed)
Max. Pin Temperature	120°C
Max. Bulb Temperature	225°C
Net Weight (approx.)	0.6 ounce

ELECTRICAL

Cathode oxide coated, indirectly heated, series or parallel supply

	<u>Parallel</u>	<u>Series</u>
Heater Voltage ²	6.75	13.5 volts
Heater Current	0.76	0.38 amp
Heater Pin Connections	9-(4 + 5)	4-5
<u>Interelectrode Capacitances</u>		
	<u>Push-Pull</u>	<u>Per Unit</u>
Output	1.4	2.6 pf
Input	5.1	6.2 pf
Plate to Grid No. 1 (internally neutralized)		max. 0.1 pf
Grid No. 2 - Grid No. 1 μ at $I_p = 30$ ma		7.5
Transconductance at $I_p = 30$ ma		3300 μ mhos

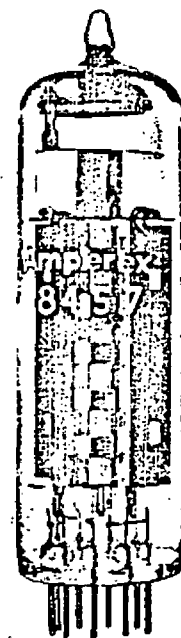
TYPICAL OPERATION, TWO UNITS IN PUSH-PULL - Useful Power Output - Watts

Class C, Telegraphy	(200 Mc)	CCS = 12.0
		ICAS = 16.0
Class C, Frequency Multiplier	(67-200 Mc)	CCS = 3.5
		ICAS = 4.8
Class C, Plate and Screen Grid Modulated	(200 Mc)	CCS = 7.1
		ICAS = 8.8
A.F. Amplifier and Modulator		Class AB ₁ = 12.0
		Class AB ₂ = 17.5

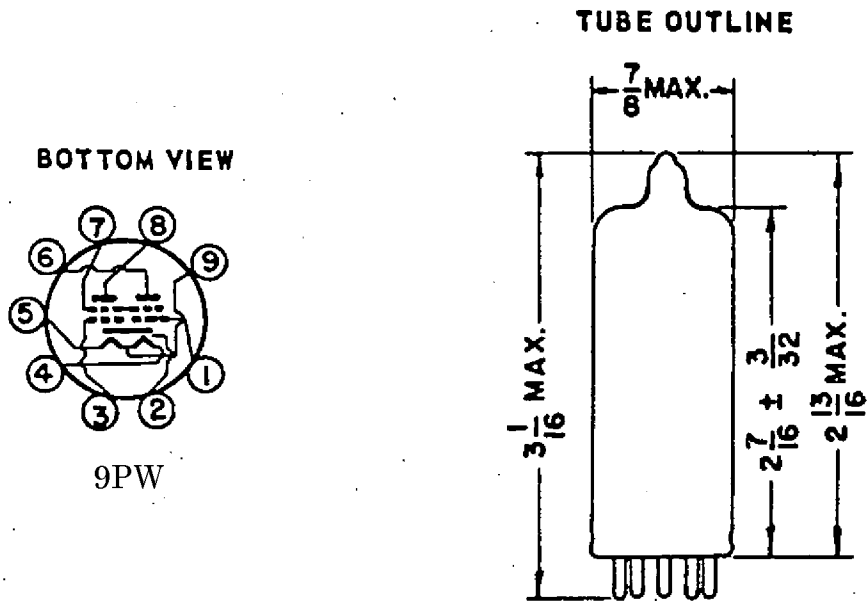
* Typical operation, maximum ratings and curves are identical to those listed on the Amperex 6360A data sheet.

¹ If the tube is mounted in a horizontal position, it is recommended that pins No. 2 and No. 7 be placed in a vertical line.

² The tube may be used with only half the heater energized during stand-by periods in order to reduce heater current consumption during this time.



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ELECTRODE CONNECTIONS AND DIMENSIONAL OUTLINE**ELECTRODE CONNECTIONS**

- Pin 1 - Grid No. 1, unit No. 1
- Pin 2 - Cathode and internal shield
- Pin 3 - Grid No. 1, unit No. 2
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Plate, unit No. 1
- Pin 7 - Grid No. 2, units No. 1 and 2
- Pin 8 - Plate, unit No. 2
- Pin 9 - Heater center tap