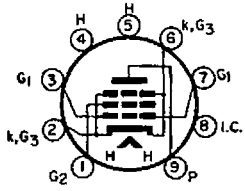
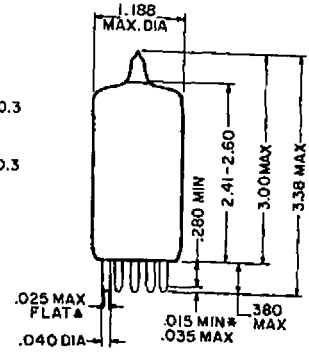
from JEDEC release #4345, July 15, 1963

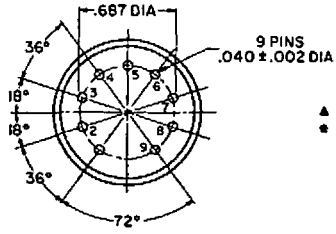
AMPEREX TUBE TYPE 8278

The Amperex 8278 is a novar beam power tetrode designed for 40 watt push-pull audio output with only a 250 volt supply. The very high transconductance of 24,000 micromhos, exceptional uniformity and reliability of this tube are attained through the use of the Amperex ampliframe grid.



PIN CONNECTION
1. GRID NO.2
2. CATHODE, GRID NO.3
3. GRID NO.1
4. HEATER
5. HEATER
6. CATHODE, GRID NO.3
7. GRID NO.1
8. INTERNAL CONNECTION
9. PLATE





▲ NOT TO BE BROUGHT TO A SHARP POINT.
* THIS DIMENSION MAY VARY WITHIN THE LIMITS SHOWN AROUND THE PERIPHERY OF ANY INDIVIDUAL PIN. THE SURFACE OF THE PIN SHALL BE CONVEX OR CONICAL IN SHAPE AND NOT BROUGHT TO A SHARP POINT.

GENERAL CHARACTERISTICS

MECHANICAL		
Bulb		See Outline drawing
Base		Novar
Outline		See Outline drawing
Dimensions		See Outline drawing
ELECTRICAL		
Heating		Indirect AC-DC parallel supply
Heater Voltage		6.3 volts
Heater Current		1.2 amps
MAXIMUM RATINGS (Design Center Values)		
D.C. Plate Voltage (Zero Plate Current)	E_{bb}	550 volts
Screen Grid Voltage (Cold Condition)		550 volts
D.C. Plate Voltage	E_b	300 volts
D.C. Grid No. 2 Voltage	E_{c2}	300 volts
Cathode Current	I_k	200 ma
Plate Dissipation	P_b	25 watts
Grid No. 2 Power Dissipation	P_{c2}	4 watts
Control Grid Circuit Resistance (Automatic Bias)	R_{c1}	0.5 megohm
Cathode-Heater Voltage	E_{kh}	±100 volts

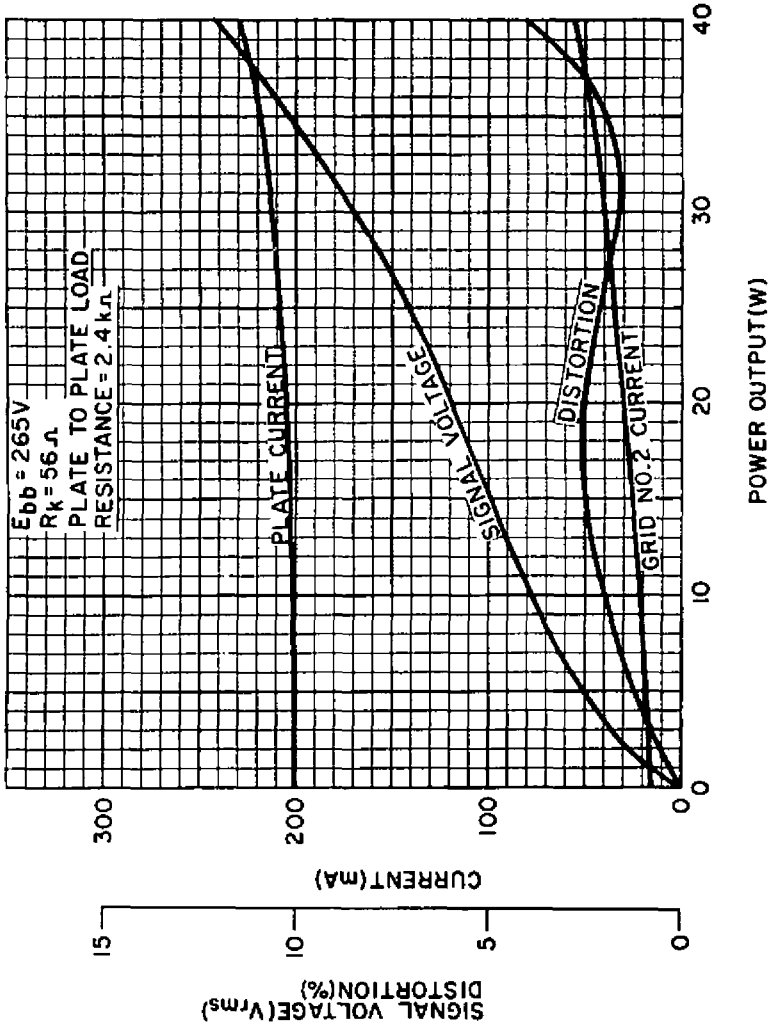
8278

Typical Characteristics

D.C. Plate Current	E_b	250 volts
D.C. Grid No. 2 Voltage	E_{c2}	250 volts
D.C. Grid No. 1 Voltage	E_{c1}	−12.5 volts
Plate Current	I_b	100 ma
D.C. Grid No. 2 Current	I_{c2}	8 ma
Transconductance	G_m	24000 μmhos
Amplification Factor, Grid No. 2 to Grid No. 1	μ_{c2c1}	14
Internal Plate Resistance	r_p	7300 ohms

Typical Operating Conditions - Push-Pull Class AB

D.C. Plate Supply Voltage	E_{bb}	265	265 volts
D.C. Grid No. 2 Supply Voltage	E_{cc2}	265	265 volts
Series Cathode Resistor (Common)	R_K	56	56 ohms
Plate to Plate Load Resistance	R_{p-p}	2400	2400 ohms
Plate Current	I_b	2x100	2x115 ma
D.C. Grid No. 2 Current	I_{c2}	2x8	2x27 ma
Signal Voltage	E_{sig}	0	12 volts rms
Harmonic Distortion	D_t	-	4 %
Power Output	P_o	0	40 watts



TYPICAL CHARACTERISTICS AS A FUNCTION OF POWER OUTPUT