



electron tubes

nuvistor

For Industrial and Military Applications



RCA-7586
medium-mu, general purpose triode ($\mu=35$)
RCA-8393 13.5V version



RCA-7587
sharp-cutoff, general-purpose tetrode



RCA-7895
high-mu, general-purpose triode ($\mu=64$)



RCA-8056
medium-mu triode ($\mu=11.5$); low B+, low-noise RF or IF amplifier; control tube; multivibrator; cathode follower



RCA-8058
high-mu triode ($\mu=70$); cathode-drive amplifier to 1200 Mc; oscillator



RCA-8203
medium-mu triode ($\mu=30$); low-level Class C service



RCA-8627
high-mu triode ($\mu=70$); low-power cathode-drive Class C service in frequency range 400 to 1200 Mc; cw power amplifier, oscillator, frequency multiplier

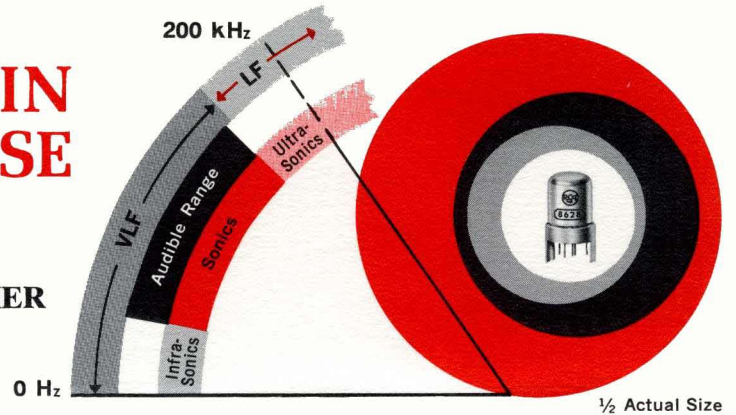


RCA-8628
high-mu triode ($\mu=127$); for low-frequency applications requiring very low grid current or high input impedance

Each nuvistor shown approx. 3/4 actual size

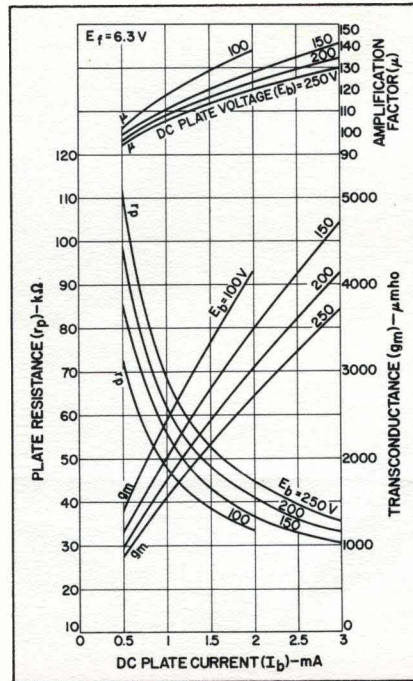
HIGH GAIN LOW NOISE

IN LOW-FREQUENCY VOLTAGE-AMPLIFIER APPLICATIONS



IF YOU DESIGN . . .

- condenser-microphone preamplifiers
- piezoelectric-pickup preamplifiers
- ceramic-pickup preamplifiers
- amplifiers for extremely small signal voltages at dc through ultrasonic frequencies



YOU ARE SURE TO APPRECIATE THESE FEATURES OF THE NEW RCA-8628 HIGH-MU NUVISTOR TRIODE:

- high input leakage resistance60 GΩ typical
- low total grid current-1 nA typical
- high amplification factor (μ)127
- broad envelope-temperature (T_E) range..-80°C to +250°C (with reduced R_g above 150°C)
- excellent stability over full T_E range..... $\frac{\Delta E_c}{\Delta T_E} \Big|_{E_b, I_b \text{ const}} = 1 \text{ mV/degC}$
- high reliability over long life.....MTBF = 1,540,000 hours (based on tests conducted on prototype nuvistor RCA-7586)
- high resistance to damage by large transient signals or power surges (e.g. can withstand -100V to +4V surges and -100V to +100V momentary transients without damage)
- high-impact, short-duration shock1000 g

The RCA-8628 is the latest addition to the growing line of nuvistors for industrial and military applications. It gives the circuit designer another opportunity to obtain high performance in sophisticated applications at very reasonable costs.

For more information on the RCA-8628 and/or the full line of RCA nuvistors, call your nearest RCA District Office or write to RCA Commercial Engineering, Dept. N-17, Harrison, New Jersey 07029.

TYPICAL OPERATION

In a high-input-impedance, cathode-follower circuit

Heater Power at $E_f = 6.3 \text{ V}$	P_f	630	mW
Plate Supply Voltage	E_{bb}	150	V
Cathode Bias Resistor (Bypassed) ...	R_k (bias)	3.3	kΩ
Cathode Load Resistor	R_k (load)	15	kΩ
Grid Resistor	R_g	100	MΩ
Input Resistance (Approx.)	R_i	1	GΩ
Output Resistance (Approx.) for source resistance ($R_s = 1 \text{ G}\Omega$)	R_o	7	kΩ
Average Grid Current	I_c (av)	-0.1	nA
Average Plate Current	I_b (av)	0.3	mA

RCA ELECTRONIC COMPONENTS AND DEVICES, HARRISON, N. J.

RCA DISTRICT OFFICES

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