RF AMPLIFIER PENTODE 6028 / 408 A

6028/408A is particularly suitable for use as RF amplifier and broadband amplifier.

COLD CAPACITANCES (external shield connected to cathode)

	MIN	AVE	MAX	
Grid No 1 to Plate			.02	$\mu\mu$F
Input	3.4	4.0	4.6	$\mu\mu$F
Output	2.4	2.8	3.2	$\mu\mu$F

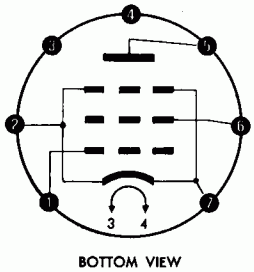
ABSOLUTE MAXIMUM RATINGS

Plate Voltage	200	volts
Grid No 2 Voltage	155	volts
Grid No 1 Voltage, positive value	+ 5	volts
Grid No 1 Voltage, negative value	— 50	volts
Cathode Current	20	ma
Plate Dissipation	1.85	watts
Grid No 2 Dissipation (see Section A)	.55	watt
Heater — Cathode Voltage	130	volts
Bulb Temperature, at hottest point	150	°C
Grid No 1 Circuit Resistance		
with fixed bias	1.0	Mohm
with cathode bias	2.0	Mohms

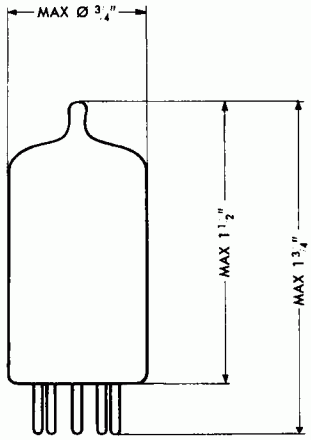
MECHANICAL DATA

Base: Small Button Miniature 7-pin, RETMA E7-1
Bulb: EIA T 5½
Mounting Position: Any

PIN NO.	CONNECTED TO
1.	Grid No 1
2.	Cathode, Grid No 3, Int. Shield
3.	Heater
4.	Heater
5.	Plate
6.	Grid No 2
7.	Cathode, Grid No 3, Int. Shield



BOTTOM VIEW



6028
408 A
RF AMPLIFIER PENTODE

Ericsson LM

TYPICAL OPERATION. CLASS A1

Heater Voltage	20.0	20.0	volts
Heater Current	.05	.05	amp
Plate Supply Voltage	120	120	volts
Grid No 2 Supply Voltage	120	120	volts
Cathode Bias Resistor	200	130	ohms
Peak AF Grid No 1 Voltage	2.0	1.5	volts
Zero Signal Plate Current	7.5	9.4	ma
Max. Signal Plate Current	7.7	9.2	ma
Zero Signal Grid No 2 Current	1.9	2.4	ma
Max. Signal Grid No 2 Current	2.7	3.2	ma
Transconductance	5000	5600	μmhos
Plate Resistance	.3	.25	Mohm
Load Resistance	15,000	15,000	ohms
Power Output	.325	.265	watt
Total Harmonic Distortion	12	5.5	%
Amplification Factor Grid No 2 to 1	24	24	
Grid No 1 Voltage for Plate Current = 10 μa	— 6.5	— 6.5	volts
Equivalent Noise Resistance	1600	1600	ohms
Transit Time Loading at 100 Mc	40	40	μmhos
Input Conductance at 100 Mc	125	125	μmhos

OPERATION RANGE VALUES

Heater Voltage		20.0		volts
Plate Supply Voltage		120		volts
Grid No 2 Supply Voltage		120		volts
Cathode Bias Resistor		200		ohms
	MIN	AVE	MAX	
Heater Current	45	50	55	ma
Plate Current	5	7.5	9	ma
Grid No 2 Current	1.5	1.9	3	ma
Transconductance	3900	5000	6000	μmhos
Transconductance, End of Life Point	3400			μmhos
I_{hk} at E_{hk} = ± 100 volts			20	μa
Grid No 1 Current			–.1	μa
Cutoff Plate Current at E_{c1} = — 10 volts			200	μa
Vibration Output		10		mv
Measured at 2.5 g and 25 cps. E_f = 20.0 v, E_{bb} = 120 v, E_{cc2} = 120 v, R_k = 200 ohms, C_k = 2000 μF, r_p = 10,000 ohms.				

AVERAGE CHARACTERISTICS