

3Q5-GT
Description and Rating
POWER-AMPLIFIER PENTODE

GENERAL DESCRIPTION

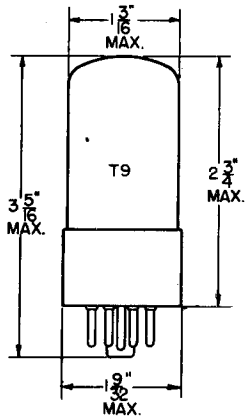
Principal Application: The 3Q5-GT is a filament type power-amplifier pentode tube designed for use in the output stage of battery operated equipment.

Cathode: Coated Filament Center-Tapped
Series* Parallel*
Filament Voltage (D-C) 2.8 1.4 Volts
Filament Current 0.050 0.100 Ampere
Envelope: T-9 Glass

The filament of the 3Q5-GT is center-tapped to permit operation with either series connection on 2.8 volts or parallel connection on 1.4 volts.

Base: B7-7 Intermed. Shell Octal 7-Pin Phenolic
Direct Interelectrode Capacitances: #
Grid to Plate 0.6 μmf
Input 8.0 μmf
Output 6.5 μmf

PHYSICAL DIMENSIONS

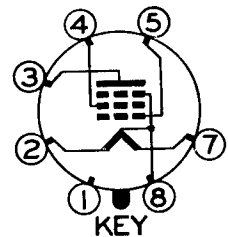


RMA 9-11

TERMINAL CONNECTIONS

- Pin 1 - No Connection
- Pin 2 - Positive Filament
- Pin 3 - Plate
- Pin 4 - Grid Number 2 (Screen)
- Pin 5 - Grid Number 1
- Pin 7 - Negative Filament (Series)
- Pin 8 - Filament Mid-Tap and Beam Plates (Negative Parallel)

BASING DIAGRAM



RMA 7AP
BOTTOM VIEW

MAXIMUM RATINGS

	Series Filament *		Parallel Filament *		
	Design	Absolute	Design	Absolute	
Plate Voltage	110	120	110	120	Volts
Screen Grid Voltage	110	120	110	120	Volts
Total Zero-Signal Cathode Current	6.0	6.6 **	12.0	13.2	Milliamperes

* For series filament operation the filament voltage is applied between pins number 2 and number 7 and the grid voltage is referred to pin number 7. For parallel filament operation the voltage is applied between pin number 8 and pins number 2 and number 7 connected together and the grid voltage is referred to pin number 8.

Approximate values without external shield.

** Values are for each 1.4-volt filament section. A shunting resistor must be connected across the negative filament section to by-pass any cathode current in excess of the rated maximum.

CHARACTERISTICS AND TYPICAL OPERATION

CLASS A AMPLIFIER

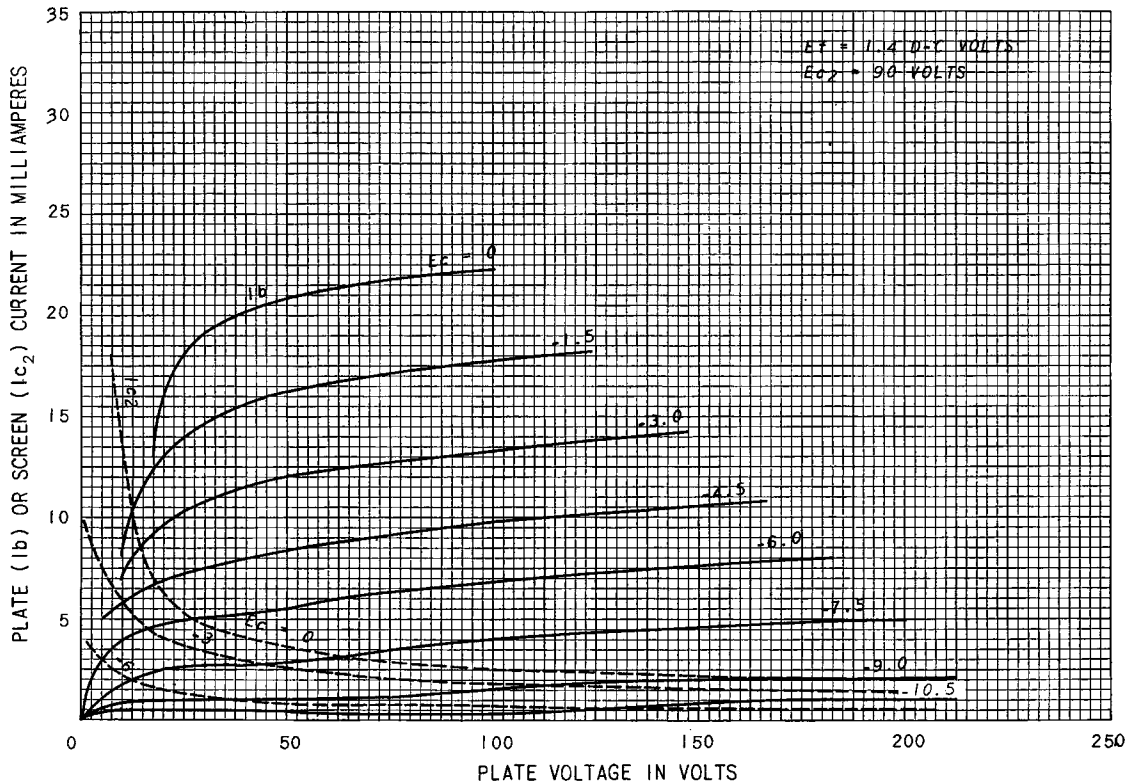
	Series Filament *		Parallel Filament *			
Filament Voltage (D-C)	2.8	2.8	1.4	1.4	1.4	Volts
Plate Voltage	90	110	85	90	110	Volts
Screen (Grid Number 2) Voltage	90	110	85	90	110	Volts
Control Grid Voltage ^o	-4.5	-6.6	-5	-4.5	-6.6	Volts
Peak A-F Grid Voltage	4.5	5.1	5	4.5	5.4	Volts
Plate Resistance (Approx)	0.08	0.11	0.07	0.09	0.1	Megohm
Transconductance	2000	2000	1950	2200	2200	Micromhos
Plate Current	8.0	8.5	7.0	9.5	10	Milliamperes
Screen Current	1.0	1.1	0.8	1.3	1.4	Milliamperes
Load Resistance	8000	8000	9000	8000	8000	Ohms
Total Harmonic Distortion	8.5	8.5	5.5	6.0	6.0	Per Cent
Maximum-Signal Power Output \S	230	330	250	270	400	Milliwatts

\S With a peak A-F grid voltage equal to the grid bias voltage the power output for the 110-volt condition is: 500 milliwatts at 10% total harmonic distortion for parallel filament operation; and 400 milliwatts at 10% distortion for series filament operation.

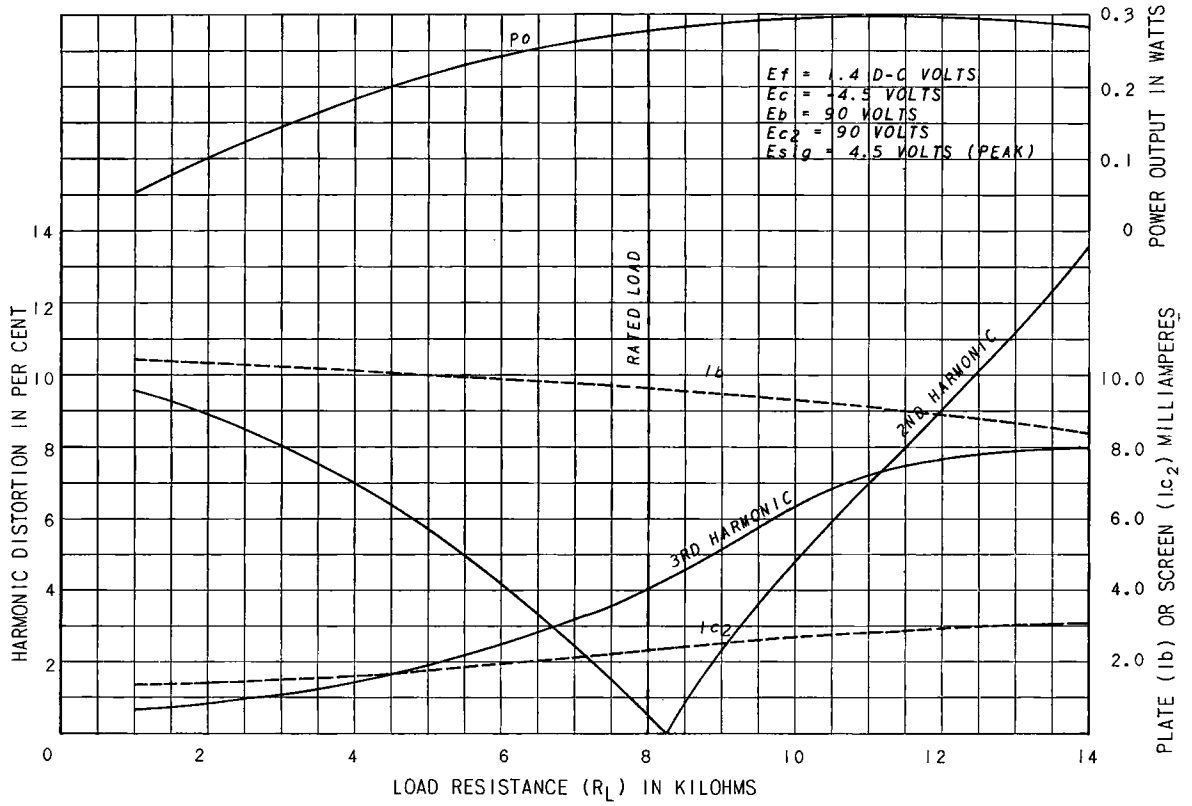
^o The d-c resistance in the grid circuit under rated maximum conditions should not exceed 1.0 megohm for either fixed bias or cathode bias operation.

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AVERAGE PLATE CHARACTERISTICS



OPERATION CHARACTERISTICS



TUBE DEPARTMENT
GENERAL  **ELECTRIC**
Schenectady 5, N. Y.