DOUBLE TRIODE
MINIATURE TYPE

COATED FILAMENT

SERIES FILAMENT PARALLEL FILAMENT
E_f applied between E_f applied between
pins 1 & 7 pin 4 and pins 2 &
E_g referred to pin 1 7 tied together.
E_g referred to pin 4

2.8 VOLTS 1.4 VOLTS
110 MA. 220 MA.

DC

A SHUNT RESISTOR MUST BE CONNECTED BETWEEN PINS 2 AND 4 FOR SERIES-FILAMENT OPERATION. ITS VALUE SHOULD BE SUCH THAT THE VOLTAGE ACROSS THE SHunted SECTION IS EQUAL TO THE VOLTAGE BETWEEN PINS 4 AND 7. AN ADDITIONAL SHUNT RESISTOR MAY BE NECESSARY BETWEEN PINS 1 AND 7 IF OTHER TUBES USED IN SERIES-FILAMENT ARRANGEMENT CONTRIBUTE TO THE FILAMENT CURRENT OF THE 3A5.

ANY MOUNTING POSITION

THE 3A5 IS INTENDED FOR USE IN HIGH FREQUENCY APPLICATIONS. THE RELATIVELY LARGE FILAMENT EMPLOYED IN THE 3A5 ENABLES IT TO SUPPLY THE HIGH PEAK CURRENTS REQUIRED IN RF POWER APPLICATIONS. IN CLASS C SERVICE, A 3A5 WITH ITS UNITS IN PUSH-PULL WILL DELIVER A POWER OUTPUT OF APPROXIMATELY 2 WATTS AT 40 MEGACYCLES. IT MAY BE USED AT STILL HIGHER FREQUENCIES WITH REDUCED EFFICIENCY. EACH TRIODE MAY BE USED INDEPENDENTLY OF THE OTHER.

DIRECT INTERELECTRODE CAPACITANCES

GRID TO PLATE: (G TO P) TRIODE UNIT 1 TRIODE UNIT 2
INPUT: (G TO H) 3.2 μf 3.2 μf
OUTPUT: (P TO H) 0.9 μf 0.9 μf
PLATE TO PLATE: (P TO P) 1.0 μf 1.0 μf 0.32 μf

RATINGS
INTERPRETED ACCORDING TO RCA STANDARD MB-210

AF AMPLIFIER RF AMPLIFIER
FILAMENT VOLTAGE 1.4 2.8 1.4 2.8 VOLTS
MAXIMUM PLATE VOLTAGE 135 135 VOLTS
MAXIMUM DC GRID VOLTAGE --- -30 VOLTS
MAXIMUM PLATE CURRENT 5 MA.
MAXIMUM DC PLATE CURRENT (PER UNIT) --- 15 MA.
MAXIMUM DC GRID CURRENT (PER UNIT) --- 2.5 MA.
MAXIMUM PLATE DISSIPATION 0.5 WATT
MAXIMUM PLATE DISSIPATION (PER UNIT) --- 1.0 WATT
MAXIMUM PLATE INPUT (PER UNIT) --- 2.0 WATT

CONTINUED ON FOLLOWING PAGE
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

AF AMPLIFIER

HEATER VOLTAGE 1.4 2.8 VOLTS
HEATER CURRENT 220 110 MA.
PLATE VOLTAGE 90 VOLTS
GRID VOLTAGE -2.5 VOLTS
PLATF CURRENT 3.7 MA.
PLATE RESISTANCE 8 300 OHMS
TRANSCONDUCTANCE 1 800 MMOS
AMPLIFICATION FACTOR 15

RF POWER AMPLIFIER AND OSCILLATOR-CLASS "C' TELEGRAPHY
AT 40 MC WITH BOTH UNITS IN PUSH-PULL
(KEY-DOWN CONDITIONS PER TUBE WITHOUT MODULATION)

FILAMENT VOLTAGE 1.4 2.8 VOLTS
FILAMENT CURRENT 220 110 MA.
DC PLATE VOLTAGE 135 VOLTS
DC GRID VOLTAGE:
FROM A FIXED SUPPLY OF -20 VOLTS
FROM A GRID RESISTOR OF 4 000 OHMS
FROM A CATHODE RESISTOR OF 570 OHMS
PEAK RF GRID-TO-GRID VOLTAGE 90 VOLTS
DC PLATE CURRENT 30 MA.
DC GRID CURRENT (APPROX.) 5 MA.
DRIVING POWER (APPROX.) 0.2 WATT
POWER OUTPUT (APPROX.) 2 WATTS