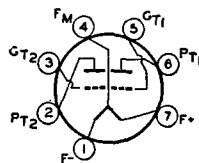


MEDIUM-MU TWIN TRIODE

3A5

Seven-pin miniature type having coated filament used as rf power amplifier and oscillator in light-weight, compact, portable, low-power, battery-operated equipment. May be used at



full input up to 40 Mc. Class C Telegraphy maximum CCS plate dissipation (each unit), 1 watt. Requires miniature seven-contact socket and may be mounted in any position. OUTLINE 6, *Outlines* Section. For filament considerations, refer to type 3A4, noting that for type 3A5 pin 4 is the filament mid-tap. Plates of the 3A5 show no color when the tube is operated at CCS ratings.

FILAMENT ARRANGEMENT	Series	Parallel	
FILAMENT VOLTAGE (DC)	2.8	1.4	volts
FILAMENT CURRENT	0.11	0.22	ampere
TRANSCONDUCTANCE*		1800	μmhos
AMPLIFICATION FACTOR*		15	
PLATE RESISTANCE (Approx.)*		8300	ohms
DIRECT INTERELECTRODE CAPACITANCES (Each unit):			
Grid to plate	3.2		μμf
Grid to filament mid-tap	0.9		μμf
Plate to filament mid-tap	1.0		μμf
Plate to plate	0.32		μμf

* Plate volts, 90; grid volts, -2.5; plate milliamperes, 3.7.

RF POWER AMPLIFIER AND OSCILLATOR—Class C Telegraphy# and RF POWER AMPLIFIER—Class C FM Telephony

Maximum CCS Ratings, *Design-Center Values for each unit:*

DC PLATE VOLTAGE	135 max	volts
DC GRID VOLTAGE	-30 max	volts
DC PLATE CURRENT	15 max	ma
DC GRID CURRENT	2.5 max	ma
PLATE INPUT	2 max	watts
PLATE DISSIPATION	1 max	watt

Typical Push-Pull Operation (*Values are for both units:*)

DC Plate Voltage	135	volts
DC Grid Voltage*	-20	volts
From grid resistor of	4000	ohms
From 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

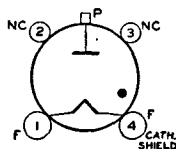
Key-down conditions per tube without amplitude modulation. Amplitude modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

* Obtained by fixed supply, by grid resistor, by cathode resistor, or by combination methods.

HALF-WAVE GAS RECTIFIER

3B25

Xenon-filled rectifier of the coated-filament type. May be used in equipment subject to wide range of ambient temperature (-75° to +90°C). Maximum peak inverse anode volts, 4500;



maximum average anode amperes, 0.5. Requires Small four-contact socket and may be mounted in any position. OUTLINE 36, *Outlines* Section.

RCA Transmitting Tubes

FILAMENT VOLTAGE (AC)°	2.5	volts
FILAMENT CURRENT	5.0	amperes
PEAK TUBE VOLTAGE DROP (Approx.)	10	volts

° Filament voltage must be applied at least 30 seconds before application of anode voltage.

HALF-WAVE RECTIFIER

Maximum Ratings:

PEAK INVERSE ANODE VOLTAGE	4500 max	volts
ANODE CURRENT:		
Peak	2.0 max	amperes
Average $\bigcirc$	0.5 max	ampere
Fault, for duration of 0.1 second maximum	20 max	amperes
FREQUENCY OF POWER SUPPLY	500 max	cps
AMBIENT-TEMPERATURE RANGE	-75 to +90	°C

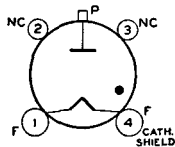
$\bigcirc$ Averaged over any period of 30 seconds maximum.

Operating Values:

Circuit (For circuit figures, refer to Rectifier Considerations Section)	Fig.	Max. Trans. Sec. Volts (RMS) E	Approx. DC Output Volts To Filter Eav	Max. DC Output Amperes Iav	Max. DC Output KW To Filter Pdc
In-Phase Operation					
Half-Wave Single-Phase	54	3100	1400	0.5	0.7
Full-Wave Single-Phase	55	1500	1400	1.0	1.4
Series Single-Phase	56	3100	2850	1.0	2.8
Half-Wave Three-Phase	57	1800	2150	1.5	3.2
Quadrature Operation					
Parallel Three-Phase	58	1800	2150	3.0	6.4
Series Three-Phase	59	1800	4300	1.5	6.4
Half-Wave Four-Phase	60	1500	2000	1.8* 2.0■	3.6* 4.0■
Half-Wave Six-Phase	61	1500	2150	1.9* 2.0■	4.1* 4.3■

* Resistive Load

■ Inductive Load



HALF-WAVE GAS RECTIFIER

Xenon-filled rectifier of the coated-filament type. May be used in equipment subject to wide range of ambient temperature (-75° to $+90^{\circ}\text{C}$). Rating I: maximum peak inverse anode volts,

3B28

10,000; maximum average anode amperes, 0.25. Rating II: maximum peak inverse anode volts, 5000; maximum average anode amperes, 0.5. Requires Small four-contact socket and may be mounted in any position. OUTLINE 33, *Outlines* Section.

FILAMENT VOLTAGE (AC)°	2.5	volts
FILAMENT CURRENT	5.0	amperes
PEAK TUBE VOLTAGE DROP (Approx.)	10	volts

° Filament voltage must be applied at least 10 seconds before the application of anode voltage.

HALF-WAVE RECTIFIER

Maximum Ratings:

PEAK INVERSE ANODE VOLTAGE	5000 max	10000 max	volts
ANODE CURRENT:			
Peak	2 max	1 max	amperes
Average $\bigcirc$	0.5 max	0.25 max	ampere
Fault, for duration of 0.1 second maximum	20 max	20 max	amperes
FREQUENCY OF POWER SUPPLY	500 max	60 max	cps
AMBIENT-TEMPERATURE RANGE	-75 to +90	-75 to +90	°C

$\bigcirc$ Averaged over any period of 30 seconds maximum.