

FATIGUE RATING

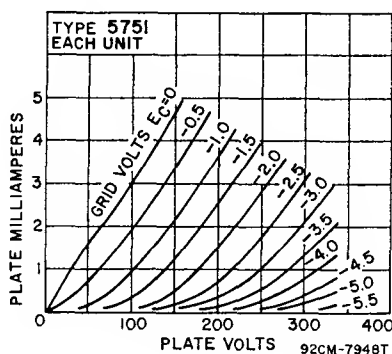
Vibrational Acceleration	2.5 max.	g
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LOW-FREQUENCY VIBRATION PERFORMANCE

RMS Output Voltage	100 max.	mV
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HEATER-CYCLING LIFE PERFORMANCE

Cycles of Intermittent Operation	2000 min.	cycles
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Refer to chart at end of section.

5751WA**9K****VHF BEAM POWER TUBE****5763**INDUSTRIAL
TYPE

Miniature type VHF beam power amplifier for use in low-power mobile transmitters and the low-power stages of larger fixed station transmitters. Outlines section, 6E; requires miniature 9-contact socket.

Heater Voltage (ac/dc)	6.0 $\pm$ 10%	volts
Heater Current	0.75	ampere
Heater-Cathode Voltage:		
Peak	$\pm$ 100 max.	volts
Transconductance for plate current of 45 mA	7000	μ mhos
Mu-Factor, Grid No.2 to Grid No.1	16	
Direct Interelectrode Capacitances:		
Grid No.1 to Plate	0.3 max	pF
Input	9.5	pF
Output	4.5	pF

Plate-Modulated RF Power Amplifier—Class C Telephony

Carrier conditions per tube for use with a max. modulation factor of 1.0

CCS● ICAS●●

MAXIMUM RATINGS (Absolute-Maximum Values)

DC Plate Voltage	250	300	volts
DC Grid-No.3 (Suppressor) Voltage	0	0	volts
DC Grid-No.2 (Screen) Voltage	250	250	volts
DC Grid-No.1 (Control-Grid) Voltage	-125	-125	volts
DC Plate Current	40	50	mA
DC Grid-No.2 Current	15	15	mA
DC Grid-No.1 Current	5	5	mA
Plate Input	10	15	watts
Grid-No.2 Input	1.5	1.5	watts
Plate Dissipation	8	12	watts
Bulb Temperature (At hottest point on bulb surface)	250	250	$^{\circ}$ C

TYPICAL OPERATION UP TO 30 MHz

DC Plate Voltage	250	300	
Grid No.3	Connected to cathode at socket		
DC Grid-No.2 Voltage	250	250	volts
DC Grid-No.1 Voltage*	—39	—42.5	volts
From a grid resistor of	39000	18000	ohms
Peak RF Grid-No.1 Voltage	46.5	53.5	volts
DC Plate Current	40	50	mA
DC Grid-No.2 Current	5.6	6	mA
DC Grid-No.1 Current (Approx.)	1	2.4	mA
Driving Power (Approx.)	0.05	0.15	watt
Useful Power Output (Approx.)	6.4■	10■	watts

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	0.1	0.1	megohm
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**RF Power Amplifier & Oscillator—Class C Telegraphy□
and
RF Power Amplifier—Class C FM Telephony**

MAXIMUM RATINGS (Absolute-Maximum Values)

	CCS●	ICAS●●	
DC Plate Voltage	300	350	volts
DC Grid-No.3 (Suppressor) Voltage	0	0	volts
DC Grid-No.2 (Screen) Voltage	250	250	volts
DC Grid-No.1 (Control-Grid) Voltage	—125	—125	volts
DC Plate Current	50	50	mA
DC Grid-No.2 Current	15	15	mA
DC Grid-No.1 Current	5	5	mA
Plate Input	15	17	watts
Grid-No.2 Input	2	2	watts
Plate Dissipation	12	13.5	watts
Bulb Temperature (At hottest point on bulb surface)	250	250	°C

TYPICAL OPERATION UP TO 30 MHz

DC Plate Voltage	300	350	volts
Grid No.3	Connected to cathode at socket		
DC Grid-No.2 Voltage	250	250	volts
DC Grid-No.1 Voltage*	—28.5	—28.5	volts
From a grid resistor of	18000	18000	ohms
Peak RF Grid-No.1 Voltage	37.5	37	volts
DC Plate Current	50	48.5	mA
DC Grid-No.2 Current	6.6	6.2	mA
DC Grid-No.1 Current (Approx.)	1.6	1.6	mA
Driving Power (Approx.)	0.1	0.1	watts
Useful Power Output (Approx.)	10.3■	12■	watts

TYPICAL OPERATION AT 50 MHz

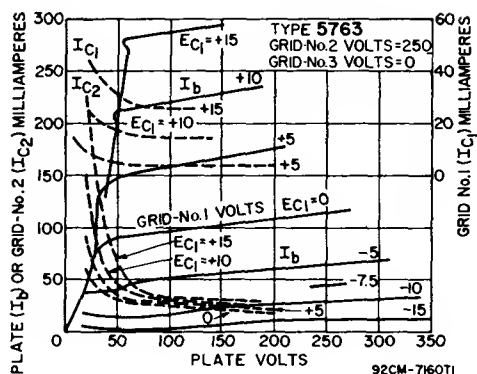
DC Plate Voltage	300	—	volts
Grid No.3	Connected to cathode at socket		
DC Grid-No.2 Voltage	250	—	volts
DC Grid-No.1 Voltage*	—60	—	volts
From a grid resistor of	22000	—	ohms
Peak RF Grid-No.1 Voltage	80	—	volts
DC Plate Current	50	—	mA
DC Grid-No.2 Current	5	—	mA
DC Grid-No.1 Current (Approx.)	3	—	mA
Driving Power (Approx.)	0.35	—	watt
Useful Power Output (Approx.)	7■	—	watts

MAXIMUM CIRCUIT VALUE

Grid-No.1-Circuit Resistance	0.1	0.1	megohm
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Frequency Multiplier**MAXIMUM CCS● RATINGS (Absolute-Maximum Values)**

DC Plate Voltage	300	volts
DC Grid-No.3 (Suppressor) Voltage	0	volts
DC Grid-No.2 (Screen) Voltage	250	volts
DC Grid-No.1 (Control-Grid) Voltage	—125	volts
DC Plate Current	50	mA
DC Grid-No.2 Current	15	mA
DC Grid-No.1 Current	5	mA
Plate Input	15	watts
Grid-No.2 Input	2	watts
Plate Dissipation	12	watts
Bulb Temperature (At hottest point on bulb surface)	250	°C



TYPICAL OPERATION

	Doubler to 175 MHz	Tripler to 175 MHz	
DC Plate Voltage	300	300	volts
Grid No.3	Connected to cathode at socket	Connected to cathode at socket	volts
DC Grid-No.2 Voltage	*	*	volts
DC Grid-No.1 Voltage [†]	-75	-100	volts
From grid resistor of	75000	100000	ohms
Peak RF Grid-No.1 Voltage	95	120	volts
DC Plate Current	40	35	mA
DC Grid-No.2 Current	4	5	mA
DC Grid-No.1 Current (Approx.)	1	1	mA
Driving Power (Approx.)	0.6	0.6	watt
Useful Power Output (Approx.)	2.1■	1.3■	watts

MAXIMUM CIRCUIT VALUE (For maximum rated conditions)

Grid-No.1-Circuit Resistance	0.1	0.1	megohm
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† Obtained preferably from a separate source modulated with the plate supply, or from the modulated plate supply through a series resistor.

* Obtained from grid-No.1 resistor or from a combination of grid-No.1 resistor with either fixed supply or cathode resistor.

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

■ Obtained from a fixed supply, or by a grid-No.1 resistor of value shown.

■ This value of useful power is measured at load of output circuit.

● Continuous Commercial Service.

●● Intermittent Commercial and Amateur Service.

* Obtained from plate supply of 300 volts through a series resistor of 12500 ohms.

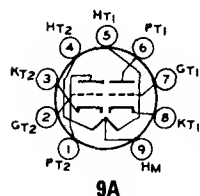
Refer to chart at end of section.

5783

5814A

INDUSTRIAL
TYPE

MEDIUM-MU TWIN TRIODE



9A

Miniature type "Premium" medium-mu twin triode used in a wide variety of applications including mixers, oscillators, multivibrators and synchronizing amplifiers in industrial control equipment. Outlines section, 6B; requires miniature 9-contact socket.

Heater Arrangement	Series	Parallel	
Heater Voltage (ac/dc)	12.6 ±10%	6.3 ±10%	volts
Heater Current	0.175	0.350	ampere
Heater-Cathode Voltage:			
Peak value	±100 max	±100 max	volts
Direct Interelectrode Capacitances (Approx.)	Unit No. 1	Unit No. 2	
Grid to Plate	1.5	1.5	pF
Grid to Cathode and Heater	1.6	1.6	pF
Plate to Cathode and Heater	0.5	0.4	pF