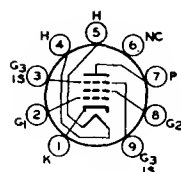


Refer to chart at end of section.

8058



9GK

POWER PENTODE

8077/7054
 INDUSTRIAL
 TYPE

Miniature type for use as a class C radio-frequency amplifier, oscillator and frequency multiplier up to 40 MHz in mobile communications equipment. Outlines section, 6B; requires miniature 9-contact socket.

Heater Voltage	13.5 $\pm$ 1.5	volts
Heater Current	0.275	ampere
Peak Heater-Cathode Voltage	$\pm$ 120 max.	volts
Direct Interelectrode Capacitances (Approx.):		
Grid No.1 to Plate	0.063	pF
Grid No.1 to all other Electrodes except Plate	10.2	pF
Plate to all other Electrodes except Grid No.1	3.5	pF

Class A₁—AF Power Amplifier

MAXIMUM RATINGS (Absolute-Maximum Values)

Plate Voltage	330	volts
Grid-No.3 (Suppressor Grid)	Connected to cathode at socket	
Grid-No.2 (Screen-Grid) Voltage	180	volts
Grid-No.1 (Control-Grid) Voltage:		
Negative-bias value	55	volts
Positive-bias value	0	volt
Grid-No.2 Input	1	watt
Plate Dissipation	5	watts

MAXIMUM CIRCUIT VALUES

Grid-No.1-Circuit Resistance:		
For fixed-bias operation	0.1	megohm
For cathode-bias operation	0.25	megohm

CHARACTERISTICS

Heater Voltage	13.5	volts
Plate Supply Voltage	250	volts
Grid No.3	Connected to cathode at socket	
Grid No.2 Supply Voltage	150	volts
Cathode Resistor	120	ohms
Plate Resistance (Approx.)	0.1	megohm
Transconductance	11500	μ mhos
Plate Current	19	mA
Grid-No.2 Current	3.5	mA
Grid-No.1 Voltage (Approx.) for plate μ A = 20	—10	volts

 RF Power Amplifier & Oscillator—Class C Telegraphy^a
 and
 RF Power Amplifier—Class C FM Telephony
MAXIMUM CCS^b RATINGS (Absolute-Maximum Values)

DC Plate Voltage	300	volts
DC Grid No.3 (Suppressor-Grid)	Connected to cathode at socket	
DC Grid-No.2 (Screen-Grid) Voltage	175	volts
DC Grid-No.1 (Control-Grid) Voltage:		
Negative-bias value	50	volts
DC Plate Current	33	mA
DC Grid-No.2 Current	5.5	mA
DC Grid-No.1 Current	3	mA
Grid-No.2 Input	1	watt
Plate Dissipation	5	watts

TYPICAL OPERATION

At frequencies up to 40 MHz

DC Plate Voltage	200	250	300	volts
Grid No.3	Connected to	cathode at	socket	
DC Grid-No.2 Voltage	115	145	175	volts
DC Grid-No.1 Voltage	—7	—9	—12	volts

Peak RF Grid-No.1 Voltage	9	11	16	volts
DC Plate Current	14.5	20	26	mA
DC Grid-No.2 Current	3	4.1	5.5	mA
DC Grid-No.1 Current (Approx.)	0.6	0.85	1	mA

MAXIMUM CIRCUIT VALUE

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

Same as for RF POWER AMPLIFIER & OSCILLATOR

TYPICAL OPERATION

As doubler up to 40 MHz

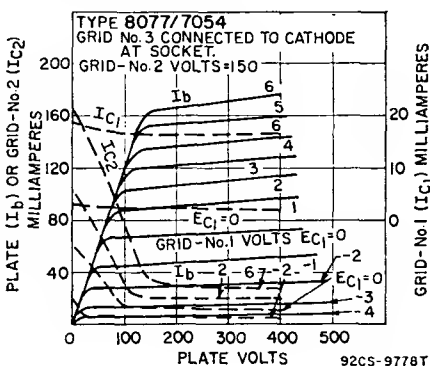
DC Plate Voltage	200	250	300	volts
Grid No.3	Connected to cathode	at socket		
DC Grid-No.2 Voltage	115	145	175	volts
DC Grid-No.1 Voltage	-16	-20	-25	volts
Peak RF Grid-No.1 Voltage	19	24	31	volts
DC Plate Current	11	15	20	mA
DC Grid-No.2 Current	2	3	4	mA
DC Grid-No.1 Current (Approx.)	0.3	0.45	0.6	mA
Driving Power (Approx.)	5	9	13	mW
Useful Power Output (Approx.)	1.4	1.9	2.5	watts

MAXIMUM CIRCUIT VALUE

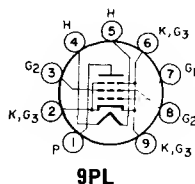
Grid-No.1-Circuit Resistance	0.1	megohm
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^a Key-down conditions per tube without amplitude modulation. Amplitude modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

^b Continuous Commercial Service.

**8106**INDUSTRIAL
TYPE**BEAM POWER TUBE**

Miniature type for use as a frequency multiplier and driver in mobile communications equipment. Outlines section, 6B; requires miniature 9-contact socket.



Heater Voltage	13.5 ± 1.5	volts
Heater Current	0.25	ampere
Peak Heater-Cathode Voltage	±100 max.	volts