

BRIMAR

VALVES

TYPE **6062**DATE **2.3.51.**
ISSUED

R.M.A. REGISTRATION DATA

DATA SHEETElectron Tube Type 6062

These data are a part of JETEC General Data J4

The 6062 is a five-electrode tube designed for use as an amplifier, and as a frequency doubler and tripler in compact, low-power mobile transmitters. The anode is capable of dissipating 12 watts and cooling is accomplished by radiation. The cathode is a coated unipotential cathode. Maximum ratings apply up to 175 megacycles. The 6062 is designed for trustworthy operation under conditions of vibration and shock. It has electrical characteristics which are identical to those of the 5763.

GENERAL:

<u>Electrical Data</u>	Min.	Bogey	Max.
Heater voltage	5.4	6.0	6.6 volts
Heater current at bogey voltage	0.69	0.75	0.81 ampere
Amplification factor, = $G_1-G_2 \mu_p$, = at Eb=Ec2=250, Ec1=-7.5		16.0	
Direct interelectrode capacitances (No external shield)			
Grid-plate			0.3 μF
Input	8	9.5	11 μF
Output	3.8	4.5	5.2 μF
<u>Mechanical Data</u>			
Outline drawing	6-3	Bulb	T-6 $\frac{1}{2}$
Base	E9-1	Miniature glass button 9-pin	
Maximum diameter			7/8"
Maximum overall length			2.5/8"
Maximum seated height			2.3/8"
Pin connections		Basing No...	9K
Pin 1 - Plate		Pin 6 - Grid No. 2	
Pin 2 - Internally connected.		Pin 7 - Cathode	
Pin 3 - Grid No. 3		Pin 8 - Grid No. 1	
Pin 4 - Heater		Pin 9 - Grid No. 1	
Pin 5 - Heater			
Mounting position			any
Maximum shock (in intermittent operation)			500 g
Vibration			2 $\frac{1}{2}$ g
Mechanical resonance		None below	100 c/s
Maximum glass temperature			250°C
Net weight, approximate			0.46 ounces

Page 1 of 3

Standard Telephones and Cables Limited

BRIMAR VALVE WORKS, FOOTSCRAY, KENT, ENGLAND.

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS:Radio-Frequency Power Amplifier and Oscillator - Class C Telegraphy^{*} and
Radio-Frequency Power Amplifier - Class C Frequency Modulation Telephony

Key down conditions per tube without amplitude modulation.

Maximum continuous commercial service ratings, absolute values.

D.C. plate voltage	300 max.volts
D.C. Grid No. 3 voltage	0 max.volts
D.C. Grid No. 2 voltage	250 max.volts
D.C. Grid No. 1 voltage	-125 max.volts
D.C. plate current	50 max.mA
D.C. Grid No. 2 current	15 max.mA
D.C. Grid No. 1 current	5 max. mA
Plate input	15 max.watts
Grid No. 2 input	2 max.watts
Plate dissipation	12 max.watts
Peak heater-cathode voltage	
Heater negative with respect to cathode	100 max.volts
Heater positive with respect to cathode	100 max.volts

Typical OperationAt 50 megacycles

D.C. plate voltage	300 volts
Grid No. 3	Tied to cathode at socket
D.C. Grid No. 2 voltage	250 volts
D.C. Grid No. 1 voltage	-60 volts
From a resistor of	22000 ohms
Peak R.F. Grid No. 1 voltage	80 volts
D.C. plate current	50 mA
D.C. Grid No. 2 current	5 mA
D.C. Grid No. 1 current (approx.)	3 mA
Driving power (approx.)	0.35 watts
Power output (approx.) ^{**}	8 watts

^{*} 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.

^{**} The useful power output is approximately 7 watts.

Frequency Multiplier

Maximum continuous commercial service, absolute values.

D.C. Plate voltage	300 max.volts
D.C. Grid No. 3 voltage	0 max.volts
D.C. Grid No. 2 voltage	250 max.volts
D.C. Grid No. 1 voltage	-125 max.volts
D.C. plate current	50 max.mA
D.C. Grid No. 2 current	15 max.mA
D.C. Grid No. 1 current	5 max.mA
Plate input	15 max.watts
Grid No. 2 input	2 max.watts
Plate dissipation	12 max.watts
Peak heater-cathode voltage	
Heater negative with respect to cathode	100 max.volts
Heater positive with respect to cathode	100 max.volts

Typical Operation

	<u>Doubler to 175 megacycles</u>	<u>Tripler to 175 megacycles</u>
D.C. plate voltage	300	300 volts
Grid No. 3	Tied to cathode at socket	
D.C. Grid No. 2 voltage	±	± volts
D.C. Grid No. 1 voltage	-75	-100 volts
From a Grid No. 1 resistor of	75,000	100,000 ohms
Peak R.F. Grid No. 1 voltage	95	120 volts
D.C. plate current	40	35 mA
D.C. Grid No. 2 current	4.0	5.0 mA
D.C. Grid No. 1 current (approx.)	1.0	1.0 mA
Driving power (approx.)	0.6	0.6 watts
Power output (approx.) ~~±±~~	3.6	2.8 watts

± Obtained from plate supply voltage of 300 volts through a series resistor of 12,500 ohms.

±± Useful power output is approximately 2.1 watts for doubler service and 1.3 watts for tripler service.