

# BRIMAR

## VALVES

TYPE **6180**

DATE **21.1.52.**  
ISSUED

### R.M.A. REGISTRATION DATA

6180

TRUSTWORTHY DOUBLE TRIODE

The 6180 is a double triode designed for trustworthy operation under conditions of vibration and mechanical shock. The heaters of the two triode units are connected in series, so that failure of either heater renders both units inoperative. The electrical characteristics are similar to the 6SN7GT, but the maximum ratings have been reduced.

MECHANICAL DATA

Coated unipotential cathode.

Outline drawing ..... 9-3      Bulb ..... T-9  
 Base ..... B.8.6  
 Maximum diameter ..... 1.9/32"  
 Maximum overall length ..... 2.7/8"  
 Maximum seated height ..... 2.5/16"  
 Pin Connections ..... Basing Number 8ED

Pin 1 - Grid of Triode 2	Pin 5 - Plate of Triode 1
Pin 2 - Plate of Triode 2	Pin 6 - Cathode of Triode 1
Pin 3 - Cathode of Triode 2	Pin 7 - Heater
Pin 4 - Grid of Triode 1	Pin 8 - Heater

Mounting position ..... any  
 Maximum shock (in intermittent service) ..... 500g  
 Vibration (continuous service) ..... 2½g  
 Mechanical resonance ..... None below 1000/s

ELECTRICAL DATA

Direct inter-electrode capacitances.

Triode 1

Grid to Plate ..... 3.5 µf  
 Grid to Cathode ..... 2.3 µf  
 Plate to Cathode ..... 2.5 µf

Sheet 1 of 2

60050/100

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Triode 2

Grid to plate ..... 3.3  $\mu\text{f}$   
Grid to Cathode ..... 2.6  $\mu\text{f}$   
Plate to Cathode ..... 2.7  $\mu\text{f}$

Plate to Plate ..... 0.4  $\mu\text{f}$

RATINGS

Heater voltage (ac or dc) ..... 6.3 volts

VALUES FOR EACH SECTION

Maximum heater-cathode voltage ..... 90 volts  
Maximum plate voltage ..... 300 volts  
Maximum negative grid voltage ..... 100 volts  
Maximum positive grid voltage ..... 0 volt  
Maximum plate dissipation ..... 2.25 watts

Maximum grid circuit resistance ..... 1.0 megohms

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

Heater voltage ..... 6.3 volts  
Heater current ..... 0.6 amp

VALUES FOR EACH SECTION

Plate voltage	100	250 volts
Grid voltage	0	-9 volts
Plate current	10.6	6.5 mA
Plate current for grid voltage of -24 volts		15 $\mu\text{A}$ Max.
Plate resistance	8000	9,100 ohms
Transconductance	2500	2,200 $\mu\text{mhos}$
Amplification factor	20	20