

ELECTRONIC TUBE REFERENCE

CONSOLIDATED TECHNICAL DATA

6A7E

1 SECTION
CONSTRUCTION
HEPTODE

Voltage - Radio Detector Converter electronic tube

Brimar heptode frequency changer for superheterodyne radio receivers. Its multi-grid structure combines local-oscillator and mixer functions, reducing the receiver front end to a single valve for frequency conversion.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Heptode

No fixed ratings recorded.

Brimar 6A7E indirectly heated 6.3 V 0.3 A heptode/pentagrid frequency changer for superheterodyne receiver local-oscillator and mixer service. Manufacturer lists RF input capacitance 8.5 pF, IF output 9.0 pF, oscillator input 7.0 pF and oscillator output 5.5 pF with close-fitting shield connected to cathode; grid-to-grid and grid-to-anode coupling capacitances separately tabulated. The manual recommends reference to 6A8 family for further operating information, but those related family values are not established as 6A7E maximum ratings and are not promoted. Conversion transconductance is different from static intrinsic gm. Existing capacitances-present flag true; single physical Heptode section.

The BRIMAR 6A7E is a heptode frequency changer with a 6.3 V, 0.3 A heater and published interelectrode capacitances.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1948 Brimar Radio Valve Manual

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1948 BRIMAR RADIO VALVE MANUAL

Section 1 · Heptode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RF Input Capacitance	8.5 pF	—
IF Output Capacitance	9 pF	—
Oscillator Input Capacitance	7 pF	—
Oscillator Output Capacitance	5.5 pF	—
Control Grid to Oscillator Grid Capacitance	0.15 pF	—
Control Grid to Anode Capacitance	0.3 pF	—
Control Grid to Oscillator Anode Capacitance	0.15 pF	—
Oscillator Grid to Oscillator Anode Capacitance	1 pF	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Brimar Radio Valve No 7

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1958 BRIMAR RADIO VALVE NO 7

Section 1 · Heptode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current	300 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Heptode frequency changer	—

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and their source documents.

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