



ELECTRONIC TUBE REFERENCE

15AB9

Voltage - Dual Tetrode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TETRODE-TETRODE

Twin tetrode designed for VHF RF amplification and autodyne mixer service, a heater-variant member of a television/radio front-end converter family.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	10
NOMINAL HEATER	15 V / 150 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Tetrode	
PLATE RESISTANCE	110000 Ω
TRANSCONDUCTANCE	0.01 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	180 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM SCREEN DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	20 mA
Matsushita 15AB9 first of two physical VHF RF amplifier/autodyne mixer tetrodes, 15 V 0.15 A heater. Other electrical specifications from manufacturer's stated JEDEC 6AB9 twin-tetrode equivalence. Each unit maximum plate 250 V, screen supply 180 V, plate dissipation 2 W, screen dissipation 0.5 W, cathode 20 mA; both plates together maximum 3.5 W. Typical each at 125 V plate, 80 V screen: gm 10 mA/V and plate resistance 110 kΩ. Interelectrode capacitances supplied by JEDEC.	

SECTION2 Tetrode	
PLATE RESISTANCE	110000 Ω
TRANSCONDUCTANCE	0.01 S
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	180 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM SCREEN DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Second physical tetrode of Matsushita 15AB9 twin tetrode, electrically equivalent to the corresponding 6AB9 sections aside from 15 V 150 mA heater. Typical each-unit Va 125 V, screen 80 V, Vg1 -1 V, 8 mA plate, 2 mA screen, gm 10 mA/V and rp approximately 110 kΩ. Per-unit limits plate 250 V, screen supply 180 V, plate dissipation 2 W, screen dissipation 0.5 W, cathode 20 mA. IMPORTANT total dissipation for both plates must not exceed 3.5 W. JEDEC 6AB9 reference gives interelectrode capacitances.</i>	

15AB9 — Twin Tetrode Vacuum Tube

A twin tetrode receiving tube with a decal base, designed specifically for high-frequency applications including VHF amplification and VHF autodyne mixer service.

Overview

The **15AB9** is a specialized twin tetrode vacuum tube designed for operation in the Very High Frequency (VHF) spectrum. It is constructed with a decal base and houses two tetrode sections within a single envelope. The primary applications for this device are as VHF amplifiers and in VHF autodyne mixer circuits, where its dual-unit construction and high-frequency capabilities can be fully utilized.

The tube was produced by Matsushita Electronics Corporation of Takatsuki, Osaka, Japan. It is closely related to the [17AB9](#) vacuum tube, sharing identical physical and electrical characteristics with the exception of its heater parameters. The 15AB9 was registered under JEDEC release #4740A on April 19, 1965.

Heater Characteristics

The 15AB9 is designed with an indirectly heated cathode system. The electrical requirements for the heater are specified as follows:

Parameter	Value
Heater Voltage	15.0 V
Heater Current	150 mA
Calculated Heater Power	2.25 W

The calculated heater power of **2.25 W** is derived directly from the product of the nominal heater voltage (15.0 V) and the nominal heater current (0.15 A). This specific heater configuration is the primary distinguishing feature of the 15AB9 when compared to its sister design, the [17AB9](#).

Physical Construction and Base

The 15AB9 utilizes a **decal base** configuration. This multi-pin base design provides the necessary independent connections for the electrodes of the twin tetrode structure, ensuring proper isolation and connection stability at high frequencies. The internal construction features two tetrode sections, which are optimized to minimize interelectrode coupling and feedback, making the tube highly suitable for stable amplification in the VHF band.

Related Designations and Comparisons

The 15AB9 is electrically and physically identical to the [17AB9](#) (originally registered under JEDEC Release No. 4740 on June 29, 1964), except for the heater voltage and current ratings. Because of this identity in active electrode structure, the two tubes share the same internal capacitances, transconductance, plate resistance, and RF performance characteristics. However, due to the different heater requirements, they are not direct plug-in substitutes without modifying the heater supply circuit of the host equipment.

RF Applications and Circuit Function

The 15AB9 is engineered for two primary roles in VHF receiver and transmitter stages:

- **VHF Amplifiers:** The tetrode configuration of each section provides a screen grid that significantly reduces the grid-to-plate capacitance. This reduction in feedback capacitance allows for stable, high-gain amplification at very high frequencies without the neutralization circuits often required by triodes.
- **VHF Autodyne Mixers:** In autodyne mixer service, the tube sections can be configured to simultaneously perform the functions of a local oscillator and a mixer. This allows for efficient frequency conversion in VHF receivers, reducing the overall component count and space requirements of the RF front-end.

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker