



ELECTRONIC TUBE REFERENCE

1611

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Pentode intended for amplification or power-output service. Manufacturer documentation supplies electrical ratings, characteristics, operating conditions, capacitances, and construction details supporting general power-capable amplifier operation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	7
NOMINAL HEATER	6.3 V / 700 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode

No fixed ratings recorded.

Published promoted values applied where semantically applicable; additional table values retained in section parameters.

1611 — Power Amplifier Pentode

The **1611** is a specialized power amplifier pentode designed for critical marine communication and emergency signaling applications. Developed by the RCA Victor Division of the Radio Corporation of America, the tube was specifically intended for use as a relay tube in shipboard equipment tasked with the automatic announcement of SOS signals. Because of its highly specialized role, the distribution of the RCA-1611 was restricted, being made available exclusively through the Radiomarine Corporation of America.

Design and Electrical Characteristics

To meet the rigorous and safety-critical requirements of automated SOS signaling service, the 1611 features a tightly controlled plate current to grid voltage ($i_p - e_g$) characteristic. This transfer characteristic is designed with a suitable slope and, crucially, features minimized variation between individual production tubes. This high level of consistency ensures uniform performance and reliable relay operation when tubes are replaced in the field, which is vital for automated emergency equipment operating under maritime conditions.

Physical Construction and Relationship to Type 6F6

In terms of its physical characteristics, the 1611 is identical to the Type [6F6](#) power pentode. This physical equivalence indicates that the 1611 shares the same external dimensions, envelope structure, and base configuration as the standard Type [6F6](#). However, while it shares these physical attributes, its internal electrical tolerances and characteristics are specifically tailored and controlled for its designated signaling and relay functions.

Technical Summary

The 1611 is an octal-based power amplifier pentode designed for specialized maritime relay service. Released in 1943 by the RCA Victor Division, it was distributed solely through the Radiomarine Corporation of America for use in automatic SOS signaling equipment. While physically identical to the Type [6F6](#), the 1611 is distinguished by its tightly controlled $i_p - e_g$ characteristic, which provides a suitable slope and minimized tube-to-tube variation to ensure dependable operation in critical automated marine safety systems.