

ELECTRONIC TUBE REFERENCE

1941

Specialized - Ballast electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BALLAST

Philips current-regulator ballast tube designed to maintain approximately 300 mA over an 80–200 V operating range.

GENERAL CHARACTERISTICS

BASE DESIGNATION	–	BASE PINS	–
NOMINAL HEATER	– / –	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Ballast	
MINIMUM REGULATOR CURRENT	289 mA
MAXIMUM REGULATOR CURRENT	311 mA
MAINTAINING VOLTAGE	140 V
Published ratings and characteristics promoted semantically from the approved Philips source.	

1941 — Current Regulator Tube

Overview

The **1941** is a current regulator (also designated as *r gulateur de courant* or *Stromregler*) designed to maintain a stable current flow across a wide range of applied voltages. Operating with a nominal regulated current of **0.3 A** (300 mA), the device is engineered to absorb voltage fluctuations in electrical circuits, providing a constant current output. The 1941 is constructed in a glass bulb envelope and is available in multiple base configurations, including a specialized four-pin base and a standard Edison screw base, to suit different mounting and equipment requirements.

Mechanical Construction and Base Options

The 1941 features a glass bulb envelope with a maximum diameter of **53 mm**. Depending on the installation requirements, the device is supplied with one of two distinct base configurations:

- **Base A (Type 40465):** This is a four-pin base configuration. When equipped with this base, the device has a maximum overall length of **162 mm**. This total length corresponds to a maximum height of **144 mm** (excluding the pins) combined with a maximum pin length of **18 mm**. The active regulating filament is connected between the top and bottom pins (marked as **f**). The base also includes two auxiliary side pins, identified as pin 1 (left, also labeled **10**) and pin 4 (right, also labeled **04**).
- **Edison Base:** This is a standard screw base configuration. When fitted with the Edison base, the device has a maximum overall length of **154 mm**.

Electrical Characteristics and Regulation Performance

The primary function of the 1941 is to regulate current to a nominal value of **0.3 A** over a specified regulating voltage range of **80 V to 200 V**.

To ensure quality and consistency, the device is tested at a reference voltage of **140 V**. At this test point, the current is held within tight tolerances:

- **Minimum Current (I_{min}):** 289 mA (0.289 A)
- **Maximum Current (I_{max}):** 311 mA (0.311 A)

Curve and Regulation Behavior

The current-versus-voltage characteristic (associated with curve reference 7R01410) demonstrates the highly stable and flat regulation performance of the 1941.

- **Within the Regulating Range (80 V to 200 V):** The current remains exceptionally flat and constant at exactly 0.3 A.
- **Extended Range and Roll-off:** The stable regulation characteristic is maintained at approximately 0.29 A to 0.30 A even down to an applied voltage of 50 V. Below the official 80 V threshold, the current begins to roll off, dropping slightly to approximately 0.29 A at 70 V.

Technical Summary

The **1941** is a glass-envelope current regulator designed to stabilize current at a nominal **0.3 A** over an operating voltage range of **80 V to 200 V**. Featuring a maximum diameter of 53 mm, it is available in a 154 mm Edison screw base configuration or a 162 mm four-pin Base A (Type 40465) configuration. With a strict current tolerance of 289 mA to 311 mA at a 140 V test point, the 1941 provides reliable, flat current regulation, maintaining a stable current of 0.29 A to 0.30 A across its active operating region.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1957 Philips Receiving and Amplifying Tubes

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

1957 PHILIPS RECEIVING AND AMPLIFYING TUBES

Section 1 · Ballast

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Nominal Regulating Current	300 mA	—
Operating Voltage Minimum	80 V	—
Operating Voltage Maximum	200 V	—
Current-Tolerance Test Voltage	140 V	—
Current Tolerance Minimum	289 mA	From tube to tube
Current Tolerance Maximum	311 mA	From tube to tube