



ELECTRONIC TUBE REFERENCE

6B8P

Voltage Pentode or Tetrode (with diode) electronic tube

CONSOLIDATED TECHNICAL DATA

3 SECTIONS

CONSTRUCTION

DIODE-DIODE-PENTODE

Receiving tube combining radio signal detection or control-voltage rectification with associated voltage amplification. Its detector function is integral to receiver signal processing and supports classification within the radio detector/converter family.

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	Dissimilar

SECTION RATINGS

SECTION1 Diode

No fixed ratings recorded.

Shuguang 6B8P first physical diode of a double-diode pentode for radio detection and automatic volume control. Manufacturer maximum rectified current is 1 mA per diode; typical/test rectified current is stated separately. This value applies to the diode and is not a pentode cathode-current maximum. Separate physical diode section 3 is retained.

SECTION2 Pentode	
TRANSCONDUCTANCE	0.00185 S
MAXIMUM PLATE VOLTAGE	275 V
MAXIMUM SCREEN VOLTAGE	140 V
MAXIMUM PLATE DISSIPATION	4 W
MAXIMUM SCREEN DISSIPATION	0.3 W
<i>Shuguang 6B8P indirectly heated double-diode pentode for RF/AF voltage amplification, detection and AVC. Pentode typical anode 250 V, grid-2 screen 125 V, control grid -3 V, anode current approximately 10 mA, screen current approximately 2.45 mA, transconductance 1.85 mA/V (0.00185 S). These typical operating points are distinct from explicit manufacturer maxima: anode 275 V, grid-2 140 V, plate dissipation 4.0 W and screen dissipation 0.3 W. Direct interelectrode capacitances published (input, output, transfer); capacitor flag true. Two separate diode sections each have their own rectifier ratings, including 1 mA per diode maximum, which are not pentode cathode-current maxima. Chinese source heater 6.3 V 300±25 mA.</i>	

SECTION3 Diode	
<i>No fixed ratings recorded.</i> <i>Second physical diode of Chinese Shuguang 6B8P double-diode pentode, used for signal detection and automatic volume control. Manufacturer publishes up to 1 mA maximum rectified current per physical diode; approximate stated minimum/test diode current 220 µA is not a general maximum. Do not apply the diode current limit to the separate pentode cathode field. Physical diode retained independent of first diode.</i>	

Indirectly heated dual-diode pentode for high- and low-frequency voltage amplification, detection, and automatic volume control.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

198X Shuguang

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

198X SHUGUANG

Section 1 · Diode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater current	300 mA	Nominal
Plate voltage	250 V	Published principal electrical parameter