

Twin Diode—Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3 ± 10%	volts
Current	0.45	amp

Direct Interelectrode Capacitances:^a

Pentode Unit:

Grid No.1 to plate	0.02 max.	μf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater.	4.8	μf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater.	2.6	μf

Diode Units:

Diode-No.1 plate to cathode and heater.	1.3	μf
Diode-No.2 plate to cathode and heater.	1.2	μf
Pentode grid No.1 to either diode plate	0.006 max.	μf

Characteristics, Class A₁ Amplifier (Pentode Unit):

Plate Supply Voltage.	250	volts
Grid-No.2 Supply Voltage.	110	volts
Cathode Resistor.	68	ohms
Plate Resistance (Approx.).	0.25	megohm
Transconductance.	5200	μmhos
Grid-No.2 Current	3.5	ma
Plate Current	10	ma
Grid-No.1 Voltage (Approx.) for plate $\mu_a = 10$	-10	volts

Mechanical:

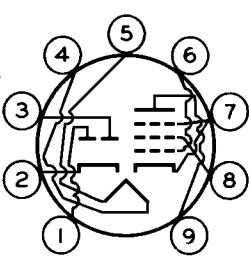
Operating Position.	Any
Maximum Overall Length.	2-3/16"
Maximum Seated Length	1-15/16"
Length, Base Seat to Bulb Top (Excluding tip)	1-9/16" ± 3/32"
Diameter.	0.750" to 0.875"
Dimensional Outline	See <i>General Section</i>
Bulb.	T6-1/2
Base.	Small-Button Noval 9-Pin (JEDEC No.E9-1)



6BW8

Basing Designation for BOTTOM VIEW. 9HK

- Pin 1 – Diode
Plate No.2
- Pin 2 – Diode Cathode
- Pin 3 – Diode
Plate No.1
- Pin 4 – Heater
- Pin 5 – Heater
- Pin 6 – Pentode
Grid No.1



- Pin 7 – Pentode
Cathode,
Grid No.3,
Internal
Shield
- Pin 8 – Pentode
Grid No.2
- Pin 9 – Pentode
Plate

PENTODE UNIT — AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

- PLATE VOLTAGE. 330 max. volts
- GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE . . 330 max. volts
- GRID-No.2 VOLTAGE. See *Grid-No.2 Input Rating Chart*
at front of Receiving Tube Section
- GRID-No.1 (CONTROL-GRID) VOLTAGE:
 - Negative-bias value. 55 max. volts
 - Positive-bias value. 0 max. volts
- GRID-No.2 INPUT:
 - For grid-No.2 voltages up to 165 volts . 0.55 max. watt
 - For grid-No.2 voltages between 165
and 330 volts. See *Grid-No.2 Input Rating Chart*
at front of Receiving Tube Section
- PLATE DISSIPATION. 3 max. watts
- PEAK HEATER-CATHODE VOLTAGE:
 - Heater negative with respect to cathode. 200 max. volts
 - Heater positive with respect to cathode. 200^b max. volts

Maximum Circuit Values:

- Grid-No.1-Circuit Resistance:
 - For fixed-bias operation 0.1 max. megohm
 - For cathode-bias operation 0.5 max. megohm

DIODE UNITS — Two

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

- PLATE CURRENT. 5 max. ma
- PEAK HEATER-CATHODE VOLTAGE:
 - Heater negative with respect to cathode. 200 max. volts
 - Heater positive with respect to cathode. 200^b max. volts

Characteristics, Instantaneous Test Condition:

Plate Current for plate volts = 5 20 ma

^a without external shield.
^b The dc component must not exceed 100 volts.