6CY5
SHARP-CUTOFF TETRODE
7-PIN MINIATURE TYPE

For use as rf amplifier in VHF tuners of television receivers

**GENERAL DATA**

**Electrical:**
Heater, for Unipotential Cathode:
- Voltage (AC or DC) ... 6.3 ± 10% volts
- Current ... 0.2 amp
Direct Interelectrode Capacitances (Approx.): 4 µf
- Grid No.1 to plate ... 0.03 µf
- Grid No.1 to cathode & internal shield, grid No.2, and heater ... 4.5 µf
- Plate to cathode & internal shield, grid No.2, and heater ... 3 µf

**Characteristics, Class A1 Amplifier:**
- Plate Voltage ... 125 volts
- Grid-No.2 Voltage ... 80 volts
- Grid-No.1 Voltage ... -1 volt
- Plate Resistance (Approx.) ... 0.1 megohm
- Transconductance ... 8000 µmhos
- Plate Current ... 10 ma
- Grid-No.2 Current ... 1.5 ma
- Grid-No.1 Voltage (Approx.) for plate µa = 20 ... -6 volts

**Mechanical:**
- Operating Position: Any
- Maximum Overall Length ... 2-1/8" 1-7/8"
- Maximum Seated Length ... 2-1/8" 1-7/8"
- Length, Base Seat to Bulb Top (Excluding tip) ... 0.650" to 0.750"
- Diameter ... See General Section
- Dimensions ... T5-1/2
- Base ... Small-Button Miniature 7-Pin (JEDEC No.E7-1)
  - Basing Designation for BOTTOM VIEW ... 7EW

**AMPLIFIER — Class A1**

**Maximum Ratings, Design-Maximum Values:**
- PLATE VOLTAGE ... 180 max. volts
- GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE ... 180 max. volts
- GRID-No.2 VOLTAGE ... See Grid-No.2 Input Rating Chart at front of Receiving Tube Section

**Indicates a change**

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GRID-No.1 (CONTROL-GRID) VOLTAGE:
  Positive-bias value.......................... 0 max. volts
CATHODE CURRENT................................ 20 max. ma
GRID-No.2 INPUT:
  For grid-No.2 voltages up to 90 volts... 0.5 max. watt
  For grid-No.2 voltages between 90 and
  180 volts.................................... See Grid-No.2 Input Rating Chart
  at front of Receiving Tube Section
PLATE DISSIPATION............................... 2 max. watts
PEAK HEATER-CATHODE VOLTAGE:
  Heater negative with respect to cathode.. 100 max. volts
  Heater positive with respect to cathode.. 100 max. volts

Maximum Circuit Values:
Grid-No.1-Circuit Resistance................. 0.5 max. megohm

*With external shield JEDEC No.316 connected to cathode.
AVerage Characteristics

$E_f = 6.3\text{ volts}$

Plate Volts = 125

Grid-Number 2 Volts = 80

Transconductance ($g_m$) vs. Micromhos

Plate Current ($I_C$) vs. Grid-Number 2 Milliamperes

Grid-Number 1 Volts

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