The 6SK7 and 12SK7 are remote-cutoff pentodes which are identical except for heater ratings. Each type is designed for use as a high-gain radio-frequency or intermediate-frequency amplifier in radio receivers. Because of its remote-cutoff characteristic, this type will handle large signal voltages without cross-modulation or modulation-distortion and is suitable for use in receivers which employ automatic-volume-control.

**GENERAL**

Cathode - Coated Unipotential

Heater Voltage, A-C or D-C .................................. 6.3 ... 12.6 Volts
Heater Current ........................................... 0.3 ... 0.15 Ampere

Envelope - MT-9, Metal Shell
Base - BB-21, Small Wafer Octal B-Pin
Mounting Position - Any

Direct Interelectrode Capacitances *
  Grid-Number 1 to Plate, maximum ....................... 0.003 μf
  Input ................................................................ 6.0 μf
  Output ................................................................ 7.0 μf

**MAXIMUM RATINGS**

Plate Voltage ................................................ 300 ........... Volts
Screen-Supply Voltage .................................... 300 ........... Volts
Screen Voltage - See Screen Rating Chart
Positive D-C Grid-Number 1 Voltage ............... 0 ........... Volts
Plate Dissipation .......................................... 4.0 ........... Watts
Screen Dissipation ......................................... 0.4 ........... Watt
Heater-Cathode Voltage
  Heater Positive with Respect to Cathode 90 ........... Volts
  Heater Negative with Respect to Cathode 90 ........... Volts

**CHARACTERISTICS AND TYPICAL OPERATION**

CLASS A1 AMPLIFIER

Plate Voltage ........................................... 100 ........... 250 Volts
Suppressor Voltage * ....................................... 0 ........... 0 Volts
Screen Voltage ........................................... 100 ........... 100 Volts
Grid-Number 1 Voltage ................................... -1 ........... -3 Volts
Plate Resistance, approximate ................... 0.12 ........... 0.8 Megaohm
Transconductance ....................................... 2350 ........... 2000 Millimhos
Plate Current ........................................... 13 ........... 9.2 Milliamperes
Screen Current .......................................... 4.0 ........... 2.6 Milliamperes
Grid-Number 1 Voltage, approximate,
  $G_m = 10 \text{ Micromhos} .................. -35 ........... -35 \text{ Volts}$

* With pin 1 connected to pin 5.

* Pin 3 connected to pin 5 at socket.
AVERAGE TRANSFER CHARACTERISTICS

$E_f = 6.3 \text{ VOLTS (6SK7)}$
$E_f = 12.6 \text{ VOLTS (12SK7)}$
$E_b = 250 \text{ VOLTS}$
$E_{c3} = 0 \text{ VOLTS}$

GRID NUMBER 1 VOLTAGE IN VOLTS

PLATE CURRENT IN MILLIAMPERES

AVERAGE TRANSFER CHARACTERISTICS

$E_f = 6.3 \text{ VOLTS (6SK7)}$
$E_f = 12.6 \text{ VOLTS (12SK7)}$
$E_b = 250 \text{ VOLTS}$
$E_{c3} = 0 \text{ VOLTS}$

GRID NUMBER 1 VOLTAGE IN VOLTS

SCREEN CURRENT IN MILLIAMPERES
**AVERAGE PLATE CHARACTERISTICS**

- $E_F = 6.3$ VOLTS (6SK7)
- $E_F = 12.6$ VOLTS (12SK7)
- $E_C3 = 0$ VOLTS
- $E_C2 = 100$ VOLTS

**SCREEN RATING CHART**

Area of permissible operation is highlighted.
AVERAGE TRANSFER CHARACTERISTICS

$E_f = 6.3$ VOLTS (6SK7)

$E_f = 12.6$ VOLTS (12SK7)

$E_b = 250$ VOLTS

$E_{c3} = 0$ VOLTS

GRID NUMBER 1 VOLTAGE IN VOLTS

TRANSCONDUCTANCE IN MICROMOS