SYLVANIA
ELECTRIC
RMA Registration Data

TYPE 3E5
BEAM PENTODE

MECHANICAL DATA

Style .................................................. miniature
cathode .................................................. coated filament
Bulb .................................................... 7-5 1/2
Base .................................................... E7-1, Miniature Button 7-Pin
Outline ................................................ 5-2
Maximum Diameter .................................. 3/4 inch
Maximum Overall Length ......................... 2 1/8 inches
Maximum Sealed Height ............................ 1 7/8 inches
Basing ................................................ 6BX-0-0

Pin Connections:
Pin 1 .. negative filament (series connection)
Pin 2 .. plate
Pin 3 .. grid #2
Pin 4 .. no connection
Pin 5 .. negative filament (parallel connection), beam plates
Pin 6 .. grid #1
Pin 7 .. positive filament

Mounting Position .................................. any

ELECTRICAL DATA

RATINGS — Design Center Values

Parallel Filaments | Series Filaments
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Filament Voltage(1) | 1.4 | 2.8 volts
Maximum Plate Voltage (dc) | 110 | 110 volts
Maximum Grid #2 Voltage (dc) | 110 | 110 volts
Maximum Cathode Current | 8 | 4(2) volts

CHARACTERISTICS AND TYPICAL OPERATION

Parallel Filaments | Series Filaments
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Filament Voltage | 1.4 | 2.8 | 2.8 volts
Filament Current | 50 | 50 | 25 | 25 milliamps
Plate Voltage (dc) | 67.5 | 90 | 67.5 | 90 volts
Grid #2 Voltage (dc) | 67.5 | 90 | 67.5 | 90 volts
Grid #1 Voltage (dc) | -5.0 | -8.0 | -5.0 | -8.0 volts
Plate Current | 5.0 | 6.0 | 4.5 | 5.5 milliamps
Grid #2 Current | 1.0 | 1.5 | 1.0 | 1.5 milliamps
Plate Resistance | 120,000 | 140,000 | 110,000 | 120,000 ohms
Transconductance | 1,300 | 1,200 | 1,200 | 1,100 micromhos
Peak Signal Voltage (af) | 5.0 | 8.0 | 5.0 | 8.0 volts
Load Resistance | 7,000 | 8,000 | 7,000 | 8,000 ohms
Total Harmonic Distortion | 7.5 | 9.5 | 10.5 | 11.0 per cent
Power Output | 100 | 200 | 90 | 175 milliwatts

(1) For power-line operation the filament voltage is centered at 1.4 or 2.8 volts respectively with parallel or series filaments for normal line voltage (117 volts).

(2) Each 1.4 volt filament section. (Shunting resistor across negative section of filament is necessary to limit current to value shown.)