THE 1U5 IS A DIODE PENTODE AMPLIFIER ESPECIALLY DESIGNED FOR DETECTOR-AUDIO SERVICE IN COMPACT, LIGHT-WEIGHT, PORTABLE EQUIPMENT. THE HIGH OPERATING EFFICIENCY ALLOWS IT TO BE USED WITH EXTREMELY LOW PLATE-SUPPLY VOLTAGE.

DIRECT INTERELECTRODE CAPACITANCES

PENTODE GRID #4 TO DIODE PLATE (PG4 TO DP) MAX. 0.04 pf

FILAMENT CHARACTERISTICS AND RATINGS

AVERAGE CHARACTERISTICS
1.4 VOLTS 50 MA.

FILAMENT SUPPLY LIMITS:
VOLTAGE OPERATION: 1.5 VOLT DRY CELL SUPPLY 1.1 TO 1.6 VOLTS
OTHER BATTERY SUPPLIES OR POWER LINE 1.1 TO 1.5 VOLTS

MAXIMUM RATINGS

PENTODE PLATE VOLTAGE 100 VOLTS
PENTODE GRID #2 VOLTAGE 100 VOLTS
CATHODE CURRENT 3.3 MA
DIODE PLATE CURRENT 0.28 MA

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS
CLASS A1 AMPLIFIER - PENTODE UNIT

PLATE VOLTAGE 67.5 VOLTS
GRID #2 VOLTAGE 67.5 VOLTS
GRID #1 VOLTAGE 0 VOLTS
PLATE RESISTANCE (APPROX.) 0.6 MEGOHM
TRANSCONDUCTANCE 625 MMOS
PLATE CURRENT 1.6 MA.
GRID #2 CURRENT 0.4 MA.
GRID #4 VOLTAGE (APPROX.) FOR IF = 40 MA DC -5 VOLTS
AVERAGE DIODE CURRENT AT 50 VOLTS DC 1.5 MA.

CONTINUED ON FOLLOWING PAGE

WITH SHIELD T16 CONNECTED TO PIN #1 OR WITHOUT EXTERNAL SHIELD
**INDICATES A CHANGE. *INDICATES AN ADDITION.
TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS
RESISTANCE COUPLED AMPLIFIER
PENTODE UNIT

PLATE SUPPLY VOLTAGE 45 90 VOLTS
SCREEN SUPPLY VOLTAGE 45 90 VOLTS
CONTROL GRID VOLTAGE 0 0 VOLTS
PLATE LOAD RESISTOR 470 000 470 000 OHMS
CONTROL GRID RESISTOR 10 10 MEGOHMS
SERIES SCREEN RESISTOR 2.2 2.2 MEGOHMS
SCREEN BY-PASS CONDENSER 0.1 0.1 μF
INPUT CONDENSER 0.01 0.01 μF
OUTPUT CONDENSER 0.01 0.01 μF
GRD RESISTOR OF FOLLOWING STAGE 1.0 1.0 MEGOHM
SIGNAL SOURCE IMPEDANCE (MAX.) 1000 1000 OHMS
DISTORTION 5 5 PERCENT
OUTPUT VOLTAGE 5.5 17.0 VOLTS
VOLTAGE GAIN AT 400 CPS 33 50

I05
DIODE UNIT
E_f = 1.4 Volts

RMS Signal Input = 30 Volts.