EHRC

KT 90
BEAM PENTRODE
FOR AF POWER AMPLIFIER
APPLICATIONS

The KT-90 is a beam-power pentode primarily designed for use in audio frequency power amplifier applications. It carries a 50 watt anode dissipation rating which provides for push-pull amplifier utilization up to 110 watts output per pair with 550 volts on the anode. Up to 160 watts per pair may be derived with an anode voltage of 750 V and 600 V on the screen grid - well within the design centre maximum parameters.

The KT-90 is recommended as a replacement for the 6550, 6550A, and KT-88 with major benefits as to power output, vastly increased anode and screen grid maximum voltage, lower distortion, and cool running leading to greatly extended useful tube life.

GENERAL

ELEKTRICAL

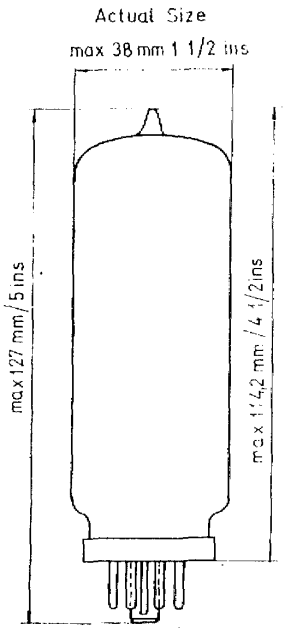
Heater characteristics and ratings:	
Heater voltage AC or DC	6.3 ± 0.6 volts
Heater current	1.6 ampers
Direct interelectrode capacitances:	
Grid - Number 1 anode	1.8 pF
Grid 1 to (H + K + g2 + BA + A)	29 pF
Anode to (H + K + g2 + BA + g1)	10 pF

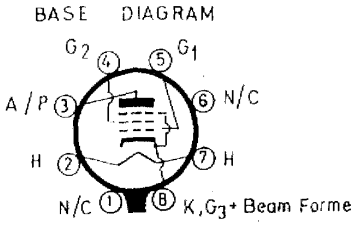
MECHANICAL

Mounting position - Any
Envelope - Glass
Base - Universal octal 8-pin

TERMINAL CONNECTIONS

PIN 1	- No Connections
PIN 2	- Heater
PIN 3	- Anode
PIN 4	- Grid number 2 (screen)
PIN 5	- Grid number 1
PIN 6	- No Connection
PIN 7	- Heater
PIN 8	- Cathode and Beam Forming tube





MAXIMUM RATINGS (ABSOLUTE)

	Pentode Connection	Triode Connection
Ua	750 V	600 V
Ug_2	650 V	-
Ua Ug_2	650 V	600 V
- Ug1	200 V	200 V
Pa (Dissipation)	50 W	50 W
Pg_2	8 W	-
Pa + g_2	54 W	-
Ik	230 mA	230 mA
Uk-f (total DC)	300 V	300 V

CHARACTERISTICS AS A GUIDE

Average characteristics, pentode connecton		
Ua	250 V	400 V
Ug2	250 V	300 V
- Ug1	14 V	27 V
Ia	145 mA	90 mA
Ig2	8 mA	4,7 mA
- Ug1 (Ia = 1mA Approx)	36 V	42 V
gm	14 mA/V	8,8 mA/V
Ri (Approx)	11 Kohm	25 Kohm

AVERAGE CHARACTERISTICS, TRIODE CONNECTION

Ua, Ug_2	250 V
- Ug1	14 V
Ia + g_2	153 mA
gm	15 mA/V
Ri (approx)	650 ohms
(amplification factor)	9