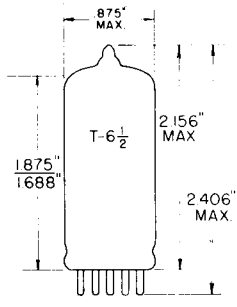
TUNG-SOL

REMOTE-CUTOFF PENTODE

MINIATURE TYPE

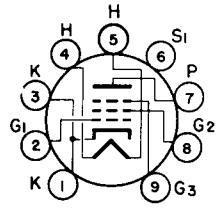


GLASS BULB
MINIATURE
9 PIN BASE E9-1

UNIPOTENTIAL CATHODE

HIGH Gm, SMALL SIGNAL
RF & IF AMPLIFIER
WITH GAIN CONTROL

SERIES STRING OPERATION



BOTTOM VIEW
BASING DIAGRAM
JEDEC 9AQ

THE 3EH7 IS A REMOTE-CUTOFF PENTODE IN THE 9 PIN MINIATURE CONSTRUCTION. IT FEATURES VERY HIGH Gm WITH A REMOTE CUTOFF AND IS DESIGNED FOR FREQUENCIES INTO THE VHF RANGE. ITS CHIEF APPLICATION IS IN THE IF AMPLIFIER STAGES OF TELEVISION RECEIVERS.

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

GRID #1 TO PLATE: (G1 TO P) MAX.	0.0055	pf
INPUT: G1 TO (H+G2+G3+K+IS)	9.5	pf
OUTPUT: P TO (H+G2+G3+K+IS)	2.8	pf

HEATER CHARACTERISTICS AND RATINGS

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	3.4 VOLTS	600	MA.
HEATER SUPPLY LIMITS:			
CURRENT OPERATION		600±40	MA.
MAXIMUM HEATER CATHODE VOLTAGE		165	VOLTS
HEATER WARM-UP TIME*		11	SECONDS

MAXIMUM RATINGS

DESIGN CENTER VALUES - SEE EIA STANDARD RS-239

PLATE VOLTAGE	250	VOLTS
PLATE DISSIPATION	2.5	WATTS
GRID #2 VOLTAGE	250	VOLTS
GRID #2 DISSIPATION	0.65	WATTS
CATHODE CURRENT	20	MA
GRID #1 CIRCUIT RESISTANCE	1	MEGOHM

*HEATER WARM-UP TIME IS DEFINED AS THE TIME REQUIRED FOR THE VOLTAGE ACROSS THE HEATER TO REACH 80% OF ITS RATED VOLTAGE AFTER APPLYING 4 TIMES RATED HEATER VOLTAGE TO A CIRCUIT CONSISTING OF THE TUBE HEATER IN SERIES WITH A RESISTANCE OF VALUE 3 TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CHARACTERISTICS

PLATE VOLTAGE	200	200	VOLTS
GRID #3 VOLTAGE	0	0	VOLTS
GRID #2 VOLTAGE (SUPPLY)	90	200	VOLTS
GRID #2 SERIES RESISTOR	0	24	KILOHMS
GRID #1 VOLTAGE	-2	-2	VOLTS
PLATE CURRENT	12	---	MA.
GRID #2 CURRENT	4.5	---	MA.
TRANSCONDUCTANCE	12500	12500	μMHOS
PLATE RESISTANCE	0.5	---	MEGOHMS
GRID #1 IMPEDANCE AT 40 MC	13	---	KILOHMS
GRID #1 CUTOFF: E_{c1} =-6.5		1250	μMHOS
E_{c1} =-9.5		625	μMHOS
E_{c1}=-19.5		125	μMHOS
GRID #1 VOLTAGE FOR A CROSS-MODULATION FACTOR OF 1%:			
E_{c1} =-6.5		100	MV.
E_{c1} =-9.5		160	MV.
E_{c1}=-19.5		450	MV.