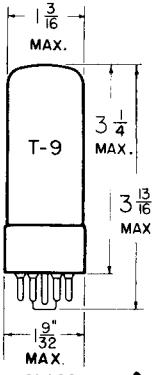
TUNG-SOL

DIODE



GLASS BULB[•]

SHORT INTERMEDIATE SHELL
OCTAL JEDEC B5-85

OR

INTERMEDIATE SHELL
OCTAL JEDEC B5-147

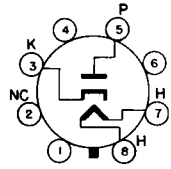
COATED UNIPOTENTIAL CATHODE

HEATER

6.3±0.6 VOLTS 1.6 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

BASING DIAGRAM
JEDEC 4CG

THE 6CQ4 IS AN INDIRECTLY-HEATED HALF-WAVE RECTIFIER DESIGNED PRIMARILY FOR TELEVISION DAMPING DIODE SERVICE IN HORIZONTAL DEFLECTION CIRCUITS. TUBE VOLTAGE DROP AND DC PLATE CURRENT RATINGS HAVE BEEN ESTABLISHED WHICH PERMITS SINGLE TUBE OPERATION IN LOW B+ AS WELL AS WIDE DEFLECTION ANGLE TV SYSTEMS.

DIRECT INTERELECTRODE CAPACITANCES - APPROX.

WITHOUT EXTERNAL SHIELD

HEATER-TO-CATHODE	4.0	pf
PLATE-TO-CATHODE AND HEATER	8.5	pf
CATHODE-TO-PLATE AND HEATER	11.5	pf

RATINGS

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM[A]

DAMPER SERVICE[B]

HEATER VOLTAGE	6.3±0.6	VOLTS
MAXIMUM PEAK INVERSE PLATE VOLTAGE	5500	VOLTS
MAXIMUM PEAK PLATE CURRENT	1200	MA.
MAXIMUM DC PLATE CURRENT	190	MA.
MAXIMUM PLATE DISSIPATION	6.5	WATTS
MAXIMUM HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE		
DC COMPONENT	900	VOLTS
TOTAL DC AND PEAK	5500	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE		
DC COMPONENT	100	VOLTS
TOTAL DC AND PEAK	300	VOLTS

CONTINUED ON FOLLOWING PAGE

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AVERAGE CHARACTERISTICS

TUBE VOLTAGE DROP Ib = 250 MA. DC	25	VOLTS

A

DESIGN-MAXIMUM RATINGS ARE LIMITING VALUES OF OPERATING AND ENVIRONMENTAL CONDITIONS APPLICABLE TO A BOGEY ELECTRON DEVICE OF A SPECIFIED TYPE AS DEFINED BY ITS PUBLISHED DATA, AND SHOULD NOT BE EXCEEDED UNDER THE WORST PROBABLE CONDITIONS. THE DEVICE MANUFACTURER CHOOSES THESE VALUES TO PROVIDE ACCEPTABLE SERVICEABILITY OF THE DEVICE, TAKING RESPONSIBILITY FOR THE EFFECTS OF CHANGES IN OPERATING CONDITIONS DUE TO VARIATIONS IN DEVICE CHARACTERISTICS. THE EQUIPMENT MANUFACTURER SHOULD DESIGN SO THAT INITIALLY AND THROUGHOUT LIFE NO DESIGN-MAXIMUM VALUE FOR THE INTENDED SERVICE IS EXCEEDED WITH A BOGEY DEVICE UNDER THE WORST PROBABLE OPERATING CONDITIONS WITH RESPECT TO SUPPLY-VOLTAGE VARIATION, EQUIPMENT COMPONENT VARIATION, EQUIPMENT CONTROL ADJUSTMENT, LOAD VARIATION, SIGNAL VARIATION, AND ENVIRONMENTAL CONDITIONS.

B

FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN "STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCAST STATIONS: FEDERAL COMMUNICATIONS COMMISSION", THE DUTY CYCLE OF THE VOLTAGE PULSE MUST NOT EXCEED 15% OF ONE SCANNING CYCLE.

THE JEDEC B5 - 85 AND B5-147 BASES SPECIFIED FOR USE WITH THE 6CQ4, DO NOT HAVE PINS IN BASE POSITIONS #1, #4 & #6, HOWEVER POSITIONS 1 & 6 HAVE INTERNAL CONNECTIONS TERMINATING IN STEM LEADS. BASE TERMINAL POSITION 2 HAS A BASE PIN WHICH MAY BE CONNECTED TO A STEM LEAD. BECAUSE OF THE CLOSE PROXIMITY OF STEM LEADS TO THE SOCKET PIN CLIPS WHEN THE TUBE IS SEATED IN THE SOCKET, CIRCUIT TIE POINTS SHOULD NOT BE MADE TO SOCKET TERMINALS 1, 2, 4 & 6 UNLESS ADEQUATE PRECAUTIONS ARE TAKEN AGAINST VOLTAGE BREAKDOWN IN BOTH THE TUBE BASE AND THE SOCKET. TO REDUCE THE POSSIBILITY OF ARCOVER, IT IS RECOMMENDED SOCKET CLIPS FOR POSITIONS 1, 2, 4 & 6 BE REMOVED FROM THE DAMPER TUBE SOCKET.