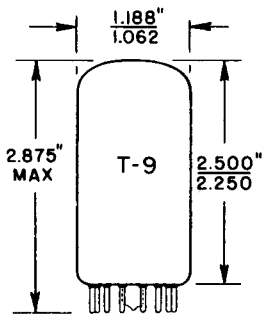


**TUNG-SOL**

DIODE

COMPACTRON

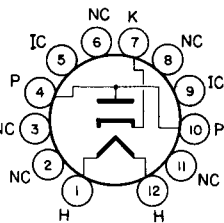


GLASS BULB  
BUTTON  
12 PIN BASE E12-70  
OUTLINE DRAWING  
JEDEC 9-60

FOR TV DAMPING  
DIODE APPLICATIONS

COATED UNIPOTENTIAL CATHODE

ANY MOUNTING POSITION



BOTTOM VIEW

BASING DIAGRAM  
JEDEC 12 GA  
SOCKET TERMINALS 5,6,8 AND 9  
SHOULD NOT BE USED AS TIE POINTS.  
IT IS FURTHER RECOMMENDED THAT  
THE SOCKET CLIPS FOR  
THESE PINS BE REMOVED.

THE 12BE3 IS A COMPACTRON, SINGLE HEATER-CATHODE TYPE DIODE INTENDED FOR SERVICE AS THE DAMPING DIODE IN THE HORIZONTAL DEFLECTION CIRCUIT OF TELEVISION RECEIVERS.

EXCEPT FOR HEATER CHARACTERISTICS AND RATINGS, THE 12BE3 IS IDENTICAL TO THE 6BE3 AND THE 17BE3.

**DIRECT INTERELECTRODE CAPACITANCES - APPROX.**  
WITHOUT EXTERNAL SHIELD

CATHODE TO PLATE AND HEATER: K TO (P + H)	10	pf
PLATE TO CATHODE AND HEATER: P TO (K + H)	8.0	pf
HEATER TO CATHODE: (H TO K)	3.4	pf

**HEATER CHARACTERISTICS AND RATINGS**

DESIGN MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	12.6	VOLTS	600	MA
HEATER WARM-UP TIME <sup>A</sup>			11	SECONDS
HEATER SUPPLY LIMITS:				
CURRENT OPERATION			600 ± 40	MA
MAXIMUM HEATER-CATHODE VOLTAGE:				
HEATER NEGATIVE WITH RESPECT TO CATHODE				
DC COMPONENT			900	VOLTS
TOTAL DC AND PEAK			5000	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE				
DC COMPONENT			100	VOLTS
TOTAL DC AND PEAK			300	VOLTS

CONTINUED ON FOLLOWING PAGE

**TUNG-SOL**

CONTINUED FROM PRECEDING PAGE

**MAXIMUM RATINGS**DESIGN MAXIMUM VALUES <sup>B</sup> - SEE EIA STANDARD RS-239**TV DAMPER SERVICE**

PEAK INVERSE PLATE VOLTAGE	5000	VOLTS
PLATE DISSIPATION	6.5	WATTS
STEADY STATE PEAK PLATE CURRENT	1200	MA
DC OUTPUT CURRENT	200	MA

**AVERAGE CHARACTERISTICS**

TUBE VOLTAGE DROP, $I_b = 350$ MA. DC	25	VOLTS
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A

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 THREE TIMES THE NOMINAL HEATER OPERATING RESISTANCE.

B

FOR OPERATION IN A 525-LINE, 30-FRAME SYSTEM AS DESCRIBED IN 'STANDARDS OF GOOD ENGINEERING PRACTICE FOR TELEVISION BROADCASTING STATIONS; FEDERAL COMMUNICATIONS COMMISSION'. THE DUTY CYCLE OF THE VOLTAGE PULSE NOT TO EXCEED 15 PERCENT OF A SCANNING CYCLE.