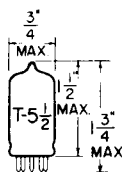


**TUNG-SOL**

**DOUBLE DIODE**

MINIATURE TYPE



GLASS BULB

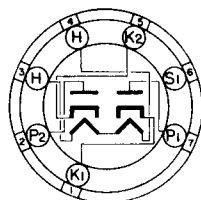
COATED UNIPOTENTIAL CATHODE

HEATER

3.15 VOLTS 0.6 AMP.

AC OR DC

ANY MOUNTING POSITION



**BOTTOM VIEW**

MINIATURE BUTTON  
7 PIN BASE

68T

THE 3AL5 COMBINES TWO INDEPENDENT DIODE UNITS IN THE 7 PIN MINIATURE CONSTRUCTION. DESIGNED FOR USE IN 600 MA. SERIES HEATER OPERATED RECEIVERS, ITS HIGH PERVEANCE PERMITS HIGH EFFICIENCY IN EITHER FM OR AM DETECTOR SERVICE. THERMAL CHARACTERISTICS OF THE HEATER ARE CONTROLLED SUCH THAT HEATER VOLTAGE SURGES DURING THE WARM-UP CYCLE ARE MINIMIZED PROVIDED IT IS USED WITH OTHER TYPES WHICH ARE SIMILARLY CONTROLLED. WITH THE EXCEPTION OF HEATER RATINGS, ITS CHARACTERISTICS ARE IDENTICAL TO TYPE 6AL5.

**DIRECT INTERELECTRODE CAPACITANCES**

	WITHOUT SHIELD	WITH SHIELD <sup>A</sup>	
PLATE INPUT: P TO (H+K+1S) EACH UNIT	2.5	3.2	μμf
COUPLING: 1P TO 2P (MAX.)	0.068	0.026	μμf
CATHODE INPUT: K TO (P+H+1S) EACH UNIT	3.4	3.6	μμf

<sup>A</sup>EXTERNAL SHIELD #316 CONNECTED TO PIN #6.

**RATINGS**

INTERPRETED ACCORDING TO DESIGN CENTER SYSTEM

HEATER VOLTAGE	3.15	VOLTS
MAXIMUM HEATER-CATHODE VOLTAGE:		
HEATER NEGATIVE WITH RESPECT TO CATHODE	200	VOLTS
TOTAL DC AND PEAK	100	VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	200	VOLTS
DC	350	VOLTS
TOTAL DC AND PEAK	117	VOLTS
MAXIMUM PEAK INVERSE VOLTAGE	54	MA.
MAXIMUM AC PLATE VOLTAGE (EACH PLATE) RMS	9	MA.
MAXIMUM STEADY STATE PEAK PLATE CURRENT (EACH PLATE)	300	OHMS
MAXIMUM DC OUTPUT CURRENT (EACH PLATE)	11.0	SECONDS
MINIMUM TOTAL EFFECTIVE PLATE SUPPLY IMPEDANCE (EACH PLATE)		
HEATER WARM-UP TIME (APPROX.)*		

**TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS**

HALF-WAVE RECTIFIER

HEATER VOLTAGE	3.15	VOLTS
HEATER CURRENT	0.6	AMP.
AVERAGE DIODE CURRENT (EACH UNIT) AT 10 VOLTS DC	60	MA.

THE RESONANT FREQUENCY OF EACH UNIT OF THE 3AL5 IS 700 MC. (APPROX.)

\* 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.

