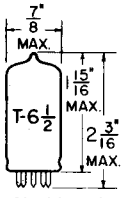
TUNG-SOL

DOUBLE TRIODE

MINIATURE TYPE



GLASS BULB

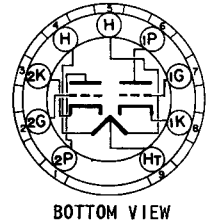
COATED UNIPOTENTIAL CATHODE

HEATER

SERIES	PARALLEL
12.6 VOLTS	6.3 VOLTS
0.15 AMP.	0.30 AMP.

AC OR DC

ANY MOUNTING POSITION



BOTTOM VIEW

SMALL BUTTON
9 PIN BASE

9A

THE 12DW7 IS A DISSIMILAR DOUBLE TRIODE IN THE 9 PIN MINIATURE CONSTRUCTION. IT IS ESPECIALLY SUITABLE FOR APPLICATIONS REQUIRING A HIGH GAIN VOLTAGE AMPLIFIER AND A CATHODYNE TYPE PHASE-INVERTER.

DIRECT INTERELECTRODE CAPACITANCES

	SECTION #1 [A]		SECTION #2 [A]		
	WITH [B] SHIELD	WITHOUT SHIELD	WITH [B] SHIELD	WITHOUT SHIELD	
GRID TO PLATE	1.7	1.7	1.5	1.5	μμf
INPUT: G TO (H + K)	1.8	1.6	1.8	1.7	μμf
OUTPUT: P TO(H + K)	2.0	0.44	2.4	0.4	μμf

RATINGS

INTERPRETED ACCORDING TO DESIGN MAXIMUM SYSTEM [C]

	SECTION #1	SECTION #2	
HEATER VOLTAGE (SERIES)	12.6		VOLTS
HEATER VOLTAGE (PARALLEL)	6.3		VOLTS
MAXIMUM PLATE VOLTAGE	330	330	VOLTS
MAXIMUM PLATE DISSIPATION	1.2	3.3	WATT
MAXIMUM CATHODE CURRENT	---	22	MA.
MAXIMUM POSITIVE DC GRID VOLTAGE	0	---	VOLTS
MAXIMUM NEGATIVE DC GRID VOLTAGE	55	---	VOLTS
MAXIMUM GRID CIRCUIT RESISTANCE:			
FIXED BIAS		0.25	MEGOHM
SELF BIAS		1.0	MEGOHM
MAXIMUM HEATER-CATHODE VOLTAGE:			
HEATER NEGATIVE WITH RESPECT TO CATHODE			
TOTAL DC AND PEAK	200		VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE			
DC	100		VOLTS
TOTAL DC AND PEAK	200		VOLTS

CONTINUED ON FOLLOWING PAGE

TUNG-SOL

CONTINUED FROM PRECEDING PAGE

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A_1 AMPLIFIER

	SECTION #1		SECTION #2		
HEATER VOLTAGE (SERIES)		12.6			
HEATER VOLTAGE (PARALLEL)		6.3			
HEATER CURRENT (SERIES)		0.15			
HEATER CURRENT (PARALLEL)		0.30			
PLATE VOLTAGE	100	250	100	250	VOLTS
GRID VOLTAGE	−1	−2	0	−8.5	VOLTS
PLATE CURRENT	0.5	1.2	11.8	10.5	MA.
TRANSCONDUCTANCE	1250	1600	3100	2200	μMHOS
AMPLIFICATION FACTOR	100	100	20	17	
PLATE RESISTANCE	80000	62500	6500	7700	OHMS
E_{c1} FOR I_b=10 μAMPS.				−24	VOLTS

[A] SECTION #1 CONNECTS TO PINS 6, 7, AND 8.
SECTION #2 CONNECTS TO PINS 1, 2, AND 3.

[B] EXTERNAL SHIELD #315 CONNECTED TO CATHODE OF SECTION UNDER TEST.

[C]

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.