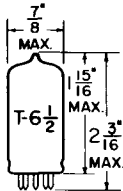


TUNG-SOL

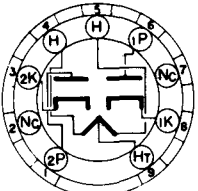
DOUBLE DIODE
MINIATURE TYPE



GLASS BULB

COATED UNIPOTENTIAL CATHODE

HEATER
26.5 VOLTS 0.20 AMP.
AC OR DC
ANY MOUNTING POSITION



BOTTOM VIEW
MINIATURE BUTTON
9 PIN BASE

985

THE 26Z5W IS A RUGGEDIZED HEATER-CATHODE TYPE DOUBLE DIODE USING THE 9 PIN MINIATURE CONSTRUCTION. IT IS SUITABLE FOR USE IN HALF OR FULL WAVE RECTIFIER APPLICATIONS OR AS A VOLTAGE DOUBLER. THE HEATER DESIGN MAKES THIS TYPE IDEAL FOR OPERATION IN AIRBORNE EQUIPMENT WHERE A 26 VOLT POWER SUPPLY IS NORMALLY AVAILABLE. ALSO THE RUGGEDIZED STRUCTURE IS CAPABLE OF WITHSTANDING SEVERE SHOCK AND VIBRATION SUCH AS THAT ENCOUNTERED IN AIRCRAFT.

RATINGS

ABSOLUTE MAXIMUM VALUES

HEATER VOLTAGE	26.5±15%	VOLTS
MAXIMUM PEAK INVERSE PLATE VOLTAGE	1375	VOLTS
MAXIMUM DC PLATE CURRENT (EACH PLATE)	300	mA.
MAXIMUM DC OUTPUT CURRENT (PER PLATE)	55	mA.
MAXIMUM SURGE CURRENT	1	AMP.
MAXIMUM HEATER-CATHODE VOLTAGE	450	VOLTS
MAXIMUM ALTITUDE	10 000	FEET
MAXIMUM SHOCK	700	G

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS
FULL-WAVE RECTIFIER

	INPUT TO FILTER CAPACITOR	CHOKE	
HEATER VOLTAGE	26.5	26.5	VOLTS
HEATER CURRENT	0.20	0.20	AMP.
AC PLATE SUPPLY VOLTAGE (EACH PLATE) RMS	325	450	VOLTS
INPUT CONDENSER	10	---	μf
OUTPUT CHOKE	---	10	HENRYS
TOTAL EFFECTIVE PLATE SUPPLY IMPEDANCE (EACH PLATE)	300	---	OHMS
DC OUTPUT CURRENT	100	100	mA.
DC OUTPUT VOLTAGE AT INPUT TO FILTER	325	380	VOLTS

CONTINUED ON FOLLOWING PAGE

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TUNG-SOL

CONTINUED FROM PRECEDING PAGE

CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

$E_f = 26.5V$, $E_{pp}/p = 400V_{ac}$, $R_L = 3650 \text{ Ohms}$, $CL = 8\mu f$

EXCEPT AS MODIFIED BELOW

	INITIAL MIN.	INDIVIDUAL MAX.	
HEATER CURRENT	180	220	mAdc
OPERATION AB	100	---	mAdc
HEATER CATHODE LEAKAGE ($E_{HK} = E_0$) ^A	0	± 150	μAdc
GRID EMISSION (1) ($E_{2B}=0$; $E_{1B}=40V_{dc}$)	160	---	mAdc
GRID EMISSION (2) ($E_{1B}=0$; $E_{2B}=40V_{dc}$)	160	---	mAdc

SPECIAL REQUIREMENTS

	MIN.	MAX.	
VARIABLE FREQUENCY VIBRATION ^C (NO VOLTAGES)	---	---	
LOW FREQUENCY VIBRATION ^D (NO VOLTAGES)	---	---	
SHOCK ^E (HAMMER ANGLE = $48^\circ C$)	---	---	
VIBRATIONAL FATIGUE ^G	---	---	
POST SHOCK AND VIBRATIONAL FATIGUE TEST END POINTS			
HEATER-CATHODE LEAKAGE	---	250	Vdc
OPERATION	94	---	mAdc
LIFE TEST ^H	1500	---	HOURS
LIFE TEST END POINT ^J OPERATION	88	---	mAdc
HEATER CYCLING LIFE TEST ^{KL}	2000	---	CYCLES

NOTES

^A SEE MIL-E-1C 4.10.13

^B IN A FULL-WAVE CIRCUIT ADJUST Z_p/p SUCH THAT A TUBE HAVING $E_{td}=22 \text{ Vdc}$ AT 100 mAdc PER PLATE GIVES $I_o = 110 \text{ mAdc}$.

^C SEE MIL-E-1C 4.9.20.3

^D SEE MIL-E-1C 4.9.20.4

^E SEE MIL-E-1C 4.9.20.5

^F AFTER SHOCK TESTS, THE TUBES SHALL MEET POST-SHOCK AND FATIGUE TEST END POINT REQUIREMENTS. IN ADDITION, THE TUBES SHALL NOT SHOW PERMANENT SHORTS OR OPEN CIRCUITS WHEN TESTED PER 4.7 (F-1e) AFTER SHOCK TESTS.

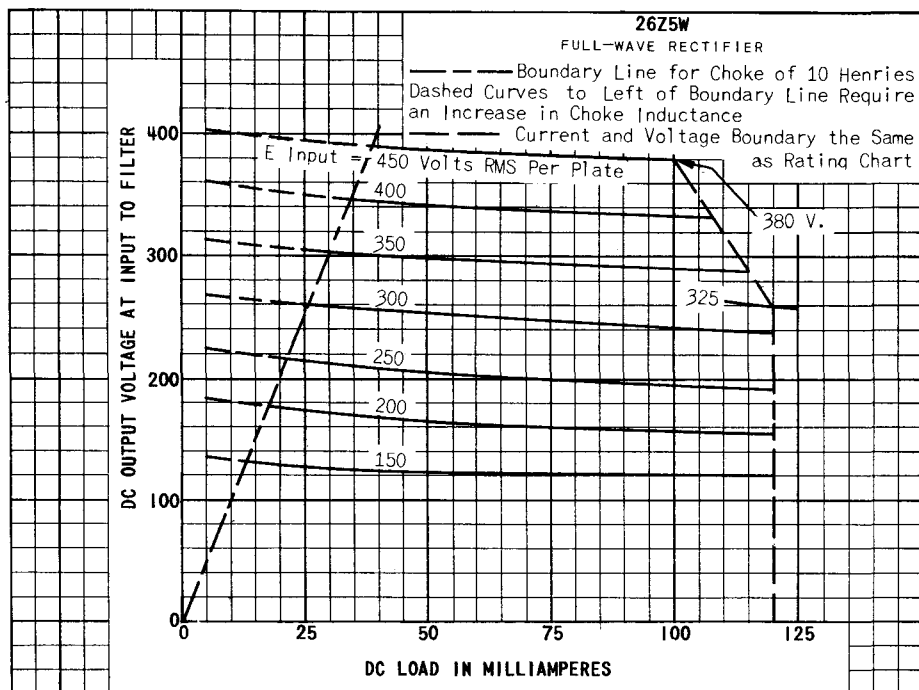
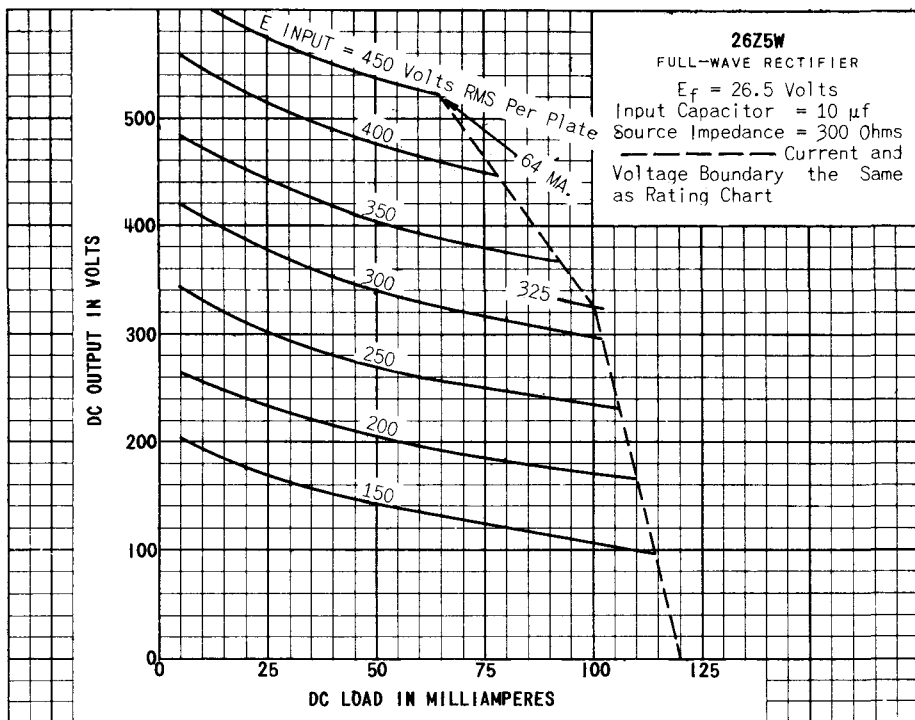
^G SEE MIL-E-1C 4.9.20.6

^H IN LIFE TEST CONDITIONS THE VALUES OF R_L AND CL GIVEN IN TEST CONDITIONS MAY BE CONSIDERED APPROXIMATE AND SHALL BE ADJUSTED INITIALLY TO GIVE I_o EQUAL TO OR GREATER THAN 110 mAdc WITH I_b EQUAL TO OR GREATER THAN 300 mA . $E_{HK} = E_0$.

^J SEE MIL-E-1C 4.11.4

^K SEE MIL-E-1C 4.11.7

^L $E_f=32V_{ac}$, $E_{HK}=-450V$; $E_p=E_0=0$. TUBES TO PASS IF, I_{HK} AND LIFE TEST END POINTS.



26Z5W

PREMIUM TUBE

TENTATIVE DATA

