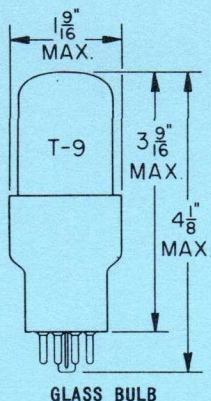
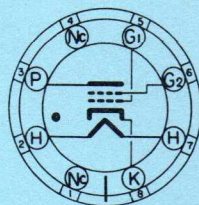


TUNG-SOL

THYRATRON ←



HEATER
 $6.3 \pm 10\%$ VOLTS 0.60 AMP.
 AC OR DC
 ANY MOUNTING POSITION



BOTTOM VIEW
 SPECIAL SKIRTED
 SMALL SHELL LOW-LOSS
 OCTAL 8 PIN BASE

685

THE 2050W IS A RUGGEDIZED, XENON FILLED, FOUR ELECTRODE THYRATRON WITH NEGATIVE CONTROL CHARACTERISTICS. THIS TUBE IS ELECTRICALLY EQUIVALENT TO THE POPULAR TYPE 2050, BUT HAS BEEN RUGGEDIZED TO PERMIT THE TUBE TO STAND HIGH IMPACT SHOCKS AND VIBRATION. THE DESIGN FEATURES STRONGER ELEMENTS AND A CUSHIONING SILASTIC RUBBER FILLING BETWEEN THE GLASS ENVELOPE AND THE SPECIAL SKIRTED LOW LOSS BASE. THIS TUBE IS DESIGNED FOR RELAY APPLICATIONS AND FOR GRID CONTROLLED RECTIFIER SERVICE. WITH THE SHIELD GRID TYPE OF CONSTRUCTION, A VERY LOW PRE-CONDUCTION GRID CURRENT FLOWS WHICH ALLOWS THE USE OF A HIGH RESISTANCE IN THE GRID CIRCUIT. THE GRID CONTROL CHARACTERISTIC, BECAUSE OF THE INERT GAS FILLING, IS INDEPENDENT OF AMBIENT TEMPERATURE OVER A WIDE RANGE.

THE EFFECTIVE ANODE TO CONTROL GRID CAPACITY MAY BE REDUCED BY CONNECTING PIN #4 TO #8 AND CONNECTING THE GRID RESISTOR DIRECTLY AT THE SOCKET TERMINAL.

ELECTRICAL DATA

HEATER VOLTAGE	$6.3 \pm 10\%$	VOLTS
HEATER CURRENT ($E_f = 6.3$ VOLTS)	0.60	AMP.
MINIMUM CATHODE HEATING TIME	10.	SECONDS
ANODE TO CONTROL GRID CAPACITANCE	0.26	$\mu\mu\text{f}$
CONTROL GRID TO CATHODE (AND SHIELD GRID) CAPACITANCE	4.2	$\mu\mu\text{f}$
ANODE TO CATHODE (AND SHIELD GRID) CAPACITANCE	3.6	$\mu\mu\text{f}$
DE-IONIZATION TIME, APPROX. (SHIELD TIED TO CATHODE)		
WITH GRID VOLTS = -250, GRID RES. = 10000 Ω		
ANODE VOLTS = 125, ANODE CURRENT = 0.1 AMPS.	50	$\mu\text{SECONDS}$
WITH GRID VOLTS = -10, GRID RES. = 1000 Ω		
ANODE VOLTS = 125, ANODE CURRENT = 0.1 AMPS.	100	$\mu\text{SECONDS}$
IONIZATION TIME, APPROX.	0.5	$\mu\text{SECONDS}$
ANODE VOLTAGE DROP, APPROX.	8	VOLTS
MAXIMUM CRITICAL GRID CURRENT (AT $E_{bb} = 460$ V. RMS)	0.5	$\mu\text{AMPS.}$

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TUNG-SOL

CONTINUED FROM PRECEDING PAGE

MECHANICAL DATA

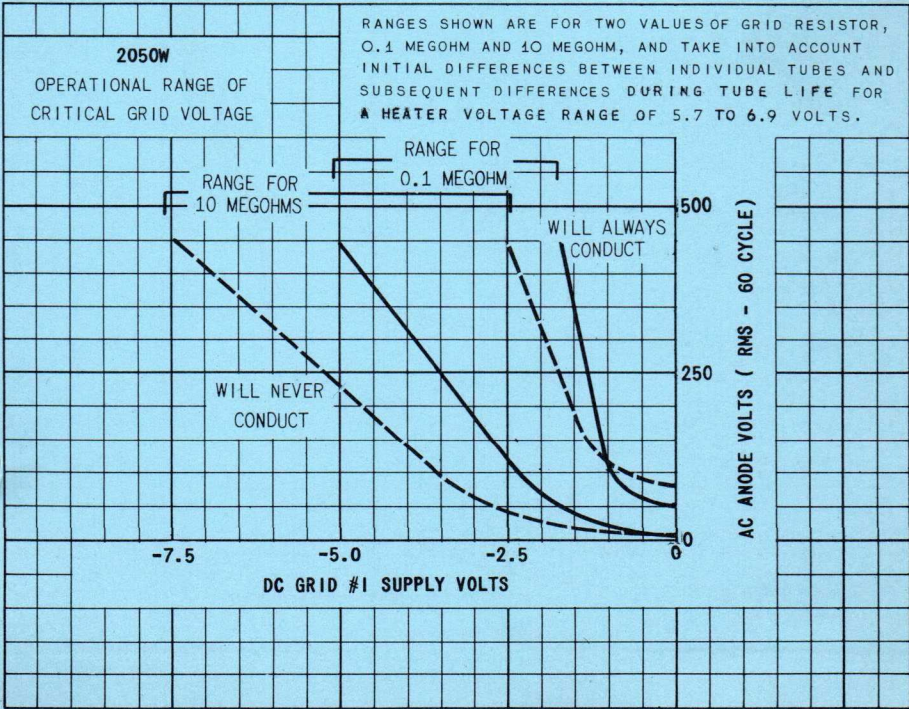
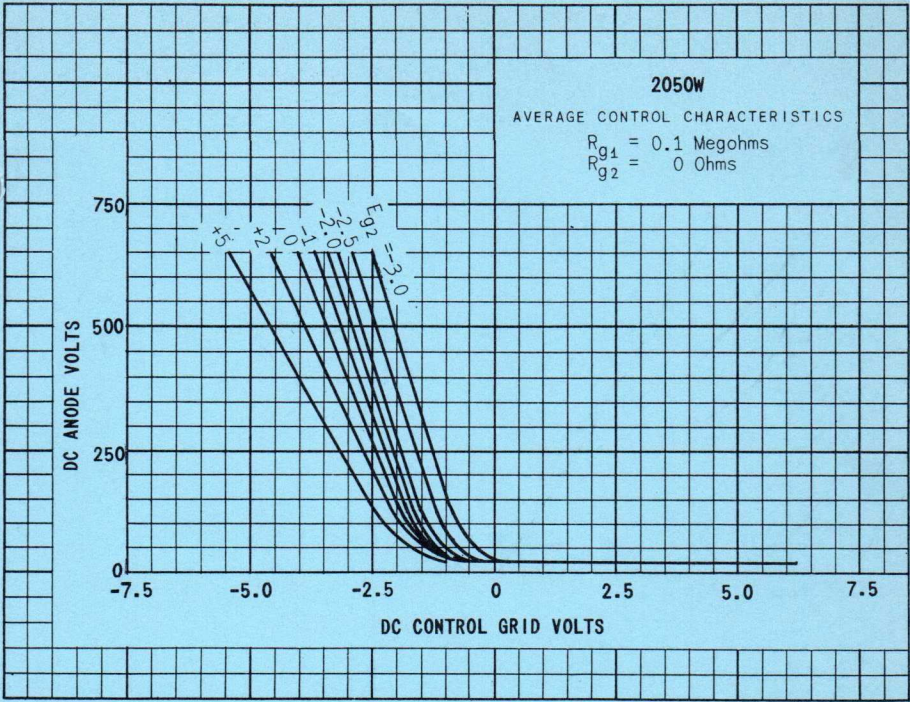
MAXIMUM SHOCK RATING	700	G
MOUNTING POSITION	ANY	
MAXIMUM OVERALL HEIGHT	4 1/8	INCHES
MAXIMUM SEATED LENGTH	3 9/16	INCHES
MAXIMUM DIAMETER	1 9/16	INCHES
BULB	T-9	
BASE	SMALL SHELL OCTAL 8 PIN	
MAXIMUM NET WEIGHT	2.5	OUNCES

RATINGS

ABSOLUTE VALUES

MAXIMUM PEAK ANODE VOLTAGE			
INVERSE	350	1300	VOLTS
FORWARD	180	650	VOLTS
MAXIMUM CATHODE CURRENT			
PEAK	1.0	1.0	AMPS.
AVERAGE	0.2	0.1	AMPS.
SURGE (MAX. DURATION 0.1 SECONDS)	10	10	AMPS.
MAXIMUM AVERAGING TIME	30	30	SECONDS
MAXIMUM NEGATIVE CONTROL GRID VOLTAGE			
BEFORE CONDUCTION	-250	-250	VOLTS
DURING CONDUCTION	-10	-10	VOLTS
MAXIMUM POSITIVE CONTROL GRID CURRENT, AVG. (AVERAGING TIME, 1 CYCLE)	0.01	0.01	AMPS.
MAXIMUM NEGATIVE SHIELD GRID VOLTAGE			
BEFORE CONDUCTION	-100	-100	VOLTS
DURING CONDUCTION	-10	-10	VOLTS
MAXIMUM POSITIVE SHIELD GRID CURRENT, AVG. (AVERAGING TIME, 1 CYCLE)	0.01	0.01	AMPS.
MAXIMUM CONTROL GRID CIRCUIT RESISTANCE	1.0	10	MEGOHMS
MAXIMUM HEATER-CATHODE VOLTAGE			
HEATER NEGATIVE	-100	-100	VOLTS
HEATER POSITIVE	25	25	VOLTS
AMBIENT TEMPERATURE LIMITS	-75 TO +90		°C

→ INDICATES A CHANGE.

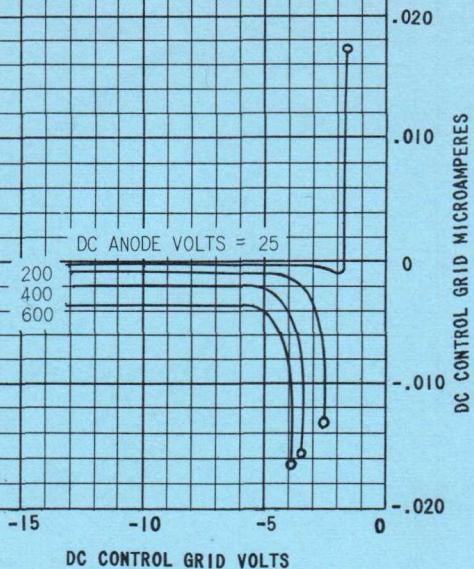


2050W

AVERAGE GRID CHARACTERISTICS
BEFORE ANODE CONDUCTION $E_f = 6.3$ Volts

Shield grid volts = 0

0 = Conduction Starts



2050W

AVERAGE GRID CHARACTERISTICS
DURING ANODE CONDUCTION $E_f = 6.3$ Volts

Shield Grid Volts = 0

DC ANODE MA = 25

50

100

150

200

