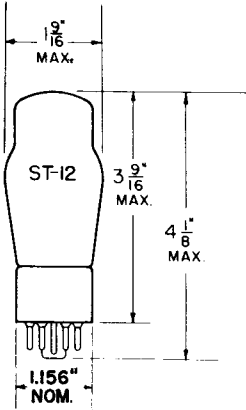


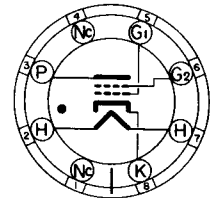
**TUNG-SOL**

THYRATRON ←



GLASS BULB

HEATER  
 6.3±10% VOLTS 0.60 AMP.  
 AC OR DC  
 ANY MOUNTING POSITION



**BOTTOM VIEW**

SPECIAL SKIRTED  
 SMALL SHELL LOW-LOSS  
 OCTAL 8 PIN BASE

6BS

THE 2050 IS A XENON FILLED FOUR ELECTRODE THYRATRON WITH NEGATIVE CONTROL CHARACTERISTIC. THIS TUBE IS DESIGNED FOR RELAY APPLICATIONS FOR GRID CONTROLLED RECTIFIER SERVICE. WITH SHIELD GRID TYPE OF CONSTRUCTION A VERY LOW PRECONDUCTION 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±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	$\mu\mu f$
CONTROL GRID TO CATHODE (AND SHIELD GRID) CAPACITANCE	4.2	$\mu\mu f$
ANODE TO CATHODE (AND SHIELD GRID) CAPACITANCE	3.6	$\mu\mu f$
DE-IONIZATION TIME, APPROX. (SHIELD TIED TO CATHODE) WITH GRID VOLTS = -250, GRID RES. = 1000 $\Omega$ ANODE VOLTS = 125, ANODE CURRENT = 0.1 AMPS.	50	$\mu$ SECONDS
WITH GRID VOLTS = -10, GRID RES. = 1000 $\Omega$ , ANODE VOLTS = 125, ANODE CURRENT = 0.1 AMPS.	100	$\mu$ SECONDS
IONIZATION TIME, APPROX.	0.5	$\mu$ SECONDS
ANODE VOLTAGE DROP, APPROX.	8	VOLTS
MAXIMUM CRITICAL GRID CURRENT (AT $E_{bb}=460$ V. RMS)	0.5	$\mu$ AMPS.

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**TUNG-SOL**

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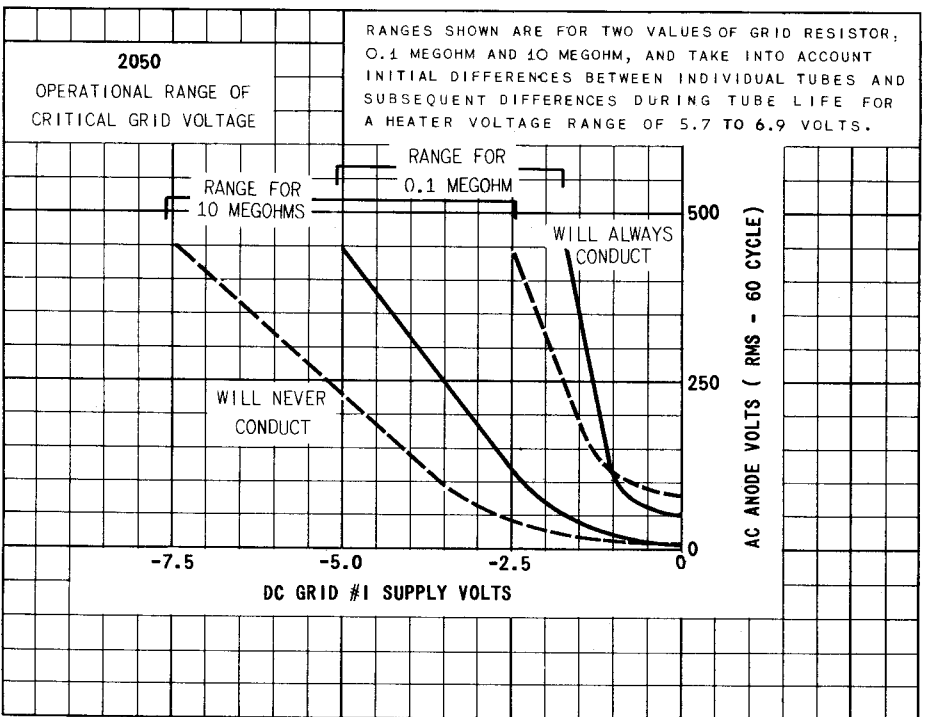
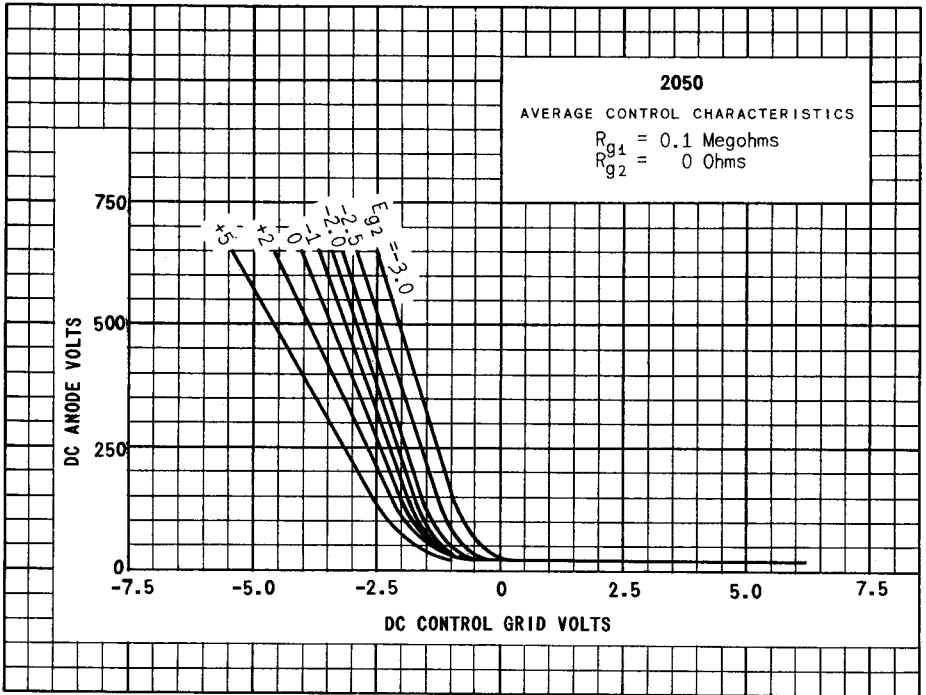
**MECHANICAL DATA**

MOUNTING POSITION	ANY	
MAXIMUM OVERALL HEIGHT	4 1/8	INCHES
MAXIMUM SEATED LENGTH	3 9/16	INCHES
MAXIMUM DIAMETER	1 9/16	INCHES
BULB	ST-12	
BASE	SMALL SHELL OCTAL 8 PIN	
MAXIMUM NET WEIGHT	1.5	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	MEG OHMS
MAXIMUM HEATER-CATHODE VOLTAGE			
HEATER NEGATIVE	-100	-100	VOLTS
HEATER POSITIVE	25	25	VOLTS
AMBIENT TEMPERATURE LIMITS	-75 TO +90		°C

→ INDICATES A CHANGE.



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