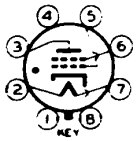
2050

2050
THYRATRON
GAS-TETRODE

Heater*	Coated Unipotential Cathode	
Voltage	6.3	a-c or d-c volts
Current	0.6	amp.
Direct Interelectrode Capacitances:°		
Control Grid to Anode	0.26	μμf
Input	4.2	μμf
Output	3.6	μμf
Tube Voltage Drop (Approx.)	8	volts
Control Ratio at Breakdown (Approx.):		
Control Grid to Anode (Shield-Grid Volts = 0)	250	
Shield Grid to Anode (Control-Grid Volts = 0)	800	
Maximum Overall Length		4-1/8"
Maximum Seated Height		3-9/16"
Maximum Diameter		1-9/16"
Bulb		ST-12
Base		Small Shell Octal 8-Pin
Pin 1 - No Connection		Pin 6 - Shield Grid
Pin 2 - Heater		Pin 7 - Heater
Pin 3 - Anode		Pin 8 - Cathode
Pin 4 - No Connection		● - Gas Tube
Pin 5 - Control Grid		
Mounting Position		Any



BOTTOM VIEW

Maximum Ratings Are Absolute Values

MAXIMUM RATINGS and TYPICAL OPERATING CONDITIONS

Peak Forward Anode Voltage	650 max.	volts
Peak Inverse Anode Voltage	1300 max.	volts
Shield-Grid (Grid No. 2) Voltage	-100 max.	volts
Control-Grid (Grid No. 1) Voltage	-100 max.	volts
Peak Heater-Cathode Potential:		
Heater negative with respect to cathode	100 max.	volts
Heater positive with respect to cathode	25 max.	volts
Peak Cathode Current	1.0 max.	amp.
Average Cathode Current**	0.1 max.	amp.
Control-Grid Circuit Resistance	10 max.	megohms
Ambient Temperature Range	-55 to +90	°C
Typical Operation in Relay Service:		
Anode Voltage (RMS)*	400	volts
Shield-Grid Voltage	0	volts
Control-Grid Bias Voltage (RMS)■	5	volts
Control-Grid Signal Voltage (Peak)	5	volts
Control-Grid Circuit Resistance	1	megohm
Anode Circuit Resistance□	2000	ohms

* Heater voltage must not deviate more than 10% from the rated value, and must be applied at least 10 seconds before the application of anode voltage.
° With no external shield.
** For an averaging period of 30 seconds.
■ Approximately 180° out of phase with the anode voltage.
□ Sufficient resistance, including the tube load, must be used under any conditions of operation to prevent exceeding the current ratings.

2050

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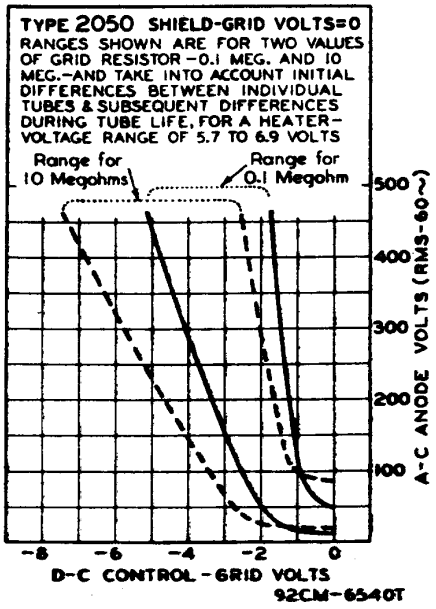
LOW-VOLTAGE OPERATION

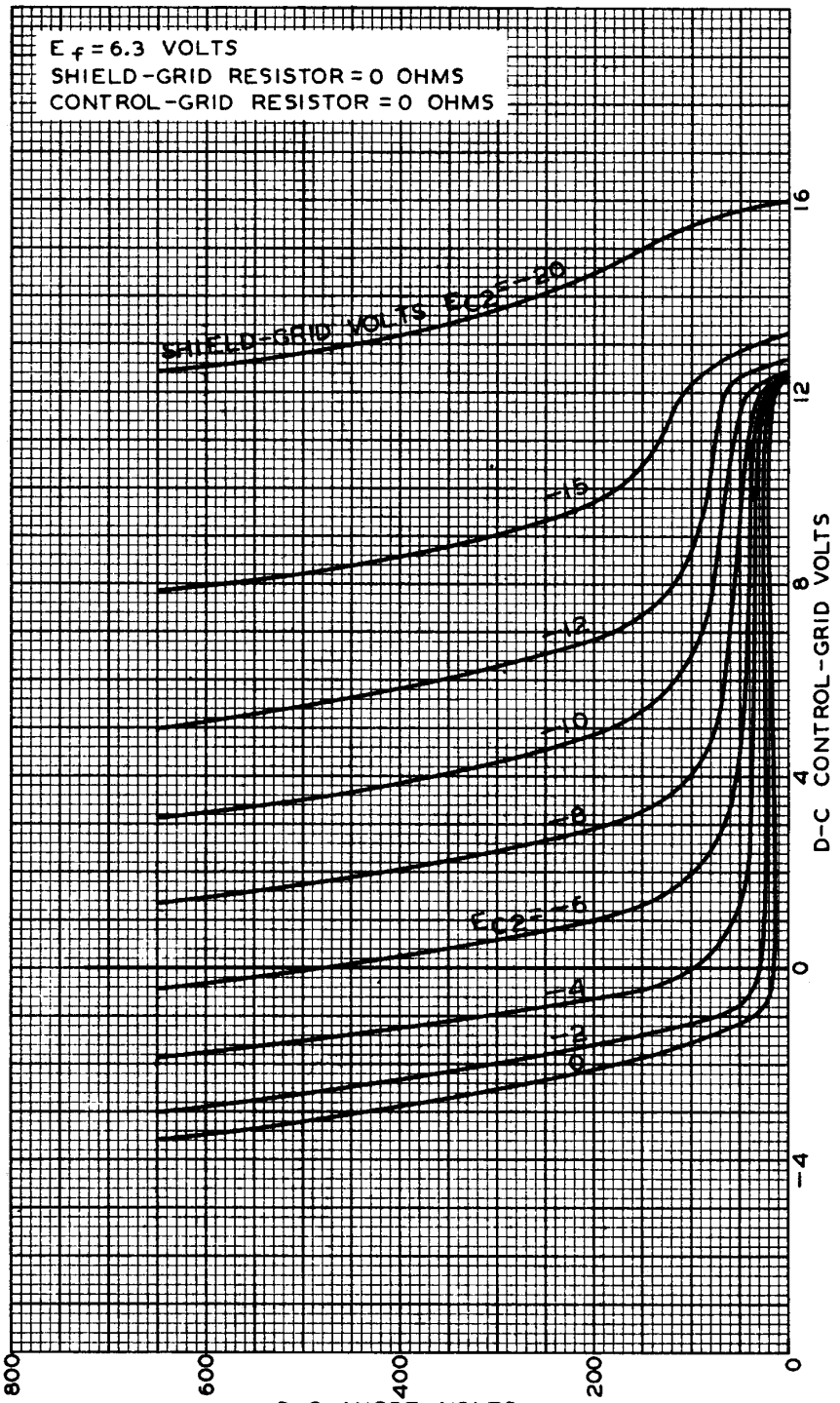
In certain applications where the applied peak forward anode voltage is to be held to a relatively low value in comparison with the maximum peak forward anode voltage rating, it is permissible to operate the 2050 with an average cathode current as high as 200 milliamperes. Before proceeding to use the 2050 in such low-voltage, high-current operation, equipment designers should consult our engineers for specific information applicable to the design problem involved.

OPERATIONAL RANGE OF CRITICAL GRID VOLTAGE



2050

AVERAGE CONTROL CHARACTERISTICS



MAY 3, 1944

RCA VICTOR DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6274RI

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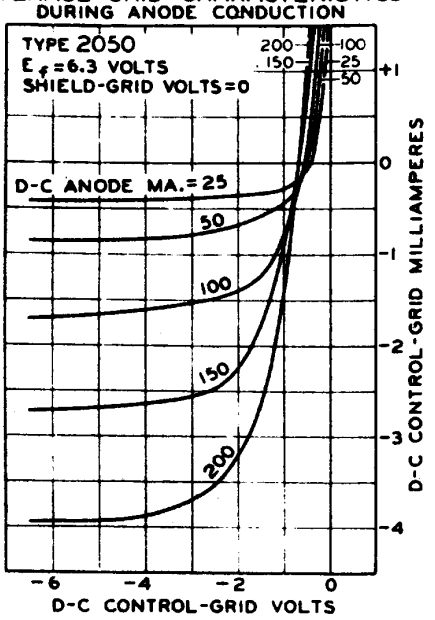
THYRATRON

AVERAGE GRID CHARACTERISTICS
DURING ANODE CONDUCTION



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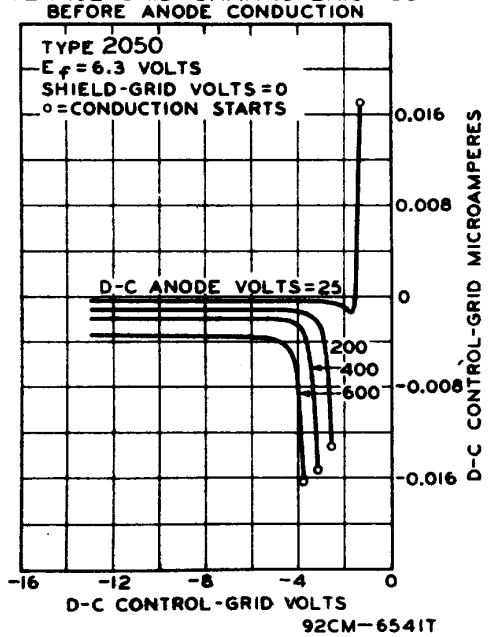
AVERAGE GRID CHARACTERISTICS
BEFORE ANODE CONDUCTION



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