Basic Characteristics	Typical Applications	Special Features
5" Round Flat Faceplate 25° Magnetic Deflection Electrostatic Focus Aluminized Molded Anode Connector	High Resolution Photographic Recording and Flying Spot Scanning	Spot Diameter 0.0025" Reduced Linearity Error (Approx. 2.5% compared to 6.5% for 40° Tubes) Edge/center Spot-Size Ratio of 1.1/1

ELECTRICAL

Cathode	Coated Unipotential
Heater:	
Voltage	6.3 Volts
Current	0.6±10% Ampere
Direct Interelectrode Capacitances:	
Grid 1 to all other Electrodes	9 pF
Grid 2 to all other Electrodes	7 pF
Cathode to all other Electrodes	7 pF
Focusing Method	Electrostatic
Deflection	25° Magnetic

OPTICAL

Screen Phosphor	Note 1
Faceplate:	
Configuration (Note 2)	Flat
Glass	Neutral Gray
Transmission	91%
Index of Refraction	1.52 ± 0.01

MECHANICAL

Mounting Position	Any
Net Weight	3 1/4 Pounds

ABSOLUTE MAXIMUM RATINGS

Anode Voltage (Note 3)	25000 max. Volts
Grid 3 (Focus) Voltage (Note 4)	9000 max. Volts
Grid 2 Voltage	600 max. Volts
Grid 1 Voltage:	
Negative Bias Value	180 max. Volts
Positive Bias Value	0 max. Volts
Positive Peak Value	0 max. Volts
Peak Heater-Cathode Voltage:	
Heater Negative with respect to Cathode:	
During warm-up period of 15 sec. max.	410 max. Volts
After equipment warm up	180 max. Volts
Heater Positive with respect to Cathode	180 max. Volts

LIMITING CIRCUIT VALUES

Grid 1 Circuit Resistance	1.5 max. Megohms
Grid 2 Circuit Resistance	See Note 5

TYPICAL OPERATION & PERFORMANCE

Anode Voltage (Note 3)	10000	20000 Volts
Grid 3 (Focus) Voltage (Note 4)	3100 to 3500	6400 to 6800 Volts
Grid 2 Voltage	300	300 Volts
Grid 1 Spot Cutoff Voltage	-40 to -65	-40 to -65 Volts
Spot Diameter with P11 (Note 6)	0.0025	0.0025 Inch
Spot Position (Note 7)		7.5 mm

NOTES

1. Westinghouse Military & industrial Cathode Ray Tubes can be supplied with most of the standard JEDEC phosphors.

2. The faceplate is a ground and polished flat plate 0.245 ± 0.005" thick with a max. deviation from mean thickness for individual plates of 0.001". Maximum deviation from flatness is 0.005" within a circle of 4 1/4" centered on the tube axis.

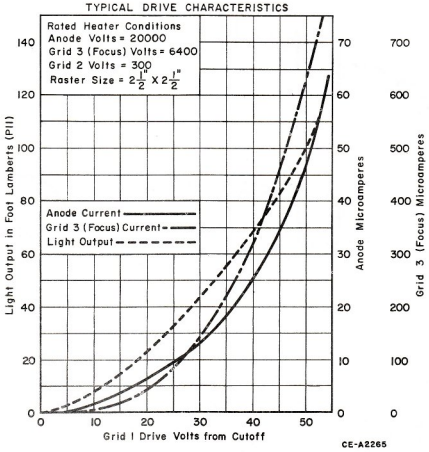
3. Operation with voltage in excess of 16KV may require shielding to limit radiation of very soft X-rays.

4. The grid 3 electrode may draw peak current of 2 milliamperes with a representative value of 300 microamperes under normal operation.

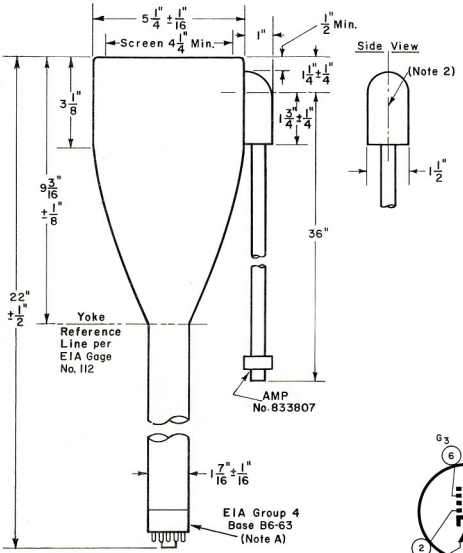
5. A grid 2 circuit resistance of approximately 0.5 megohm should be provided. In addition it is recommended that a suitable device be used to limit grid 2 voltage to the maximum rated value to prevent tube damage in case of a momentary arc.

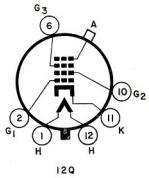
6. Line width is defined as the distance between the half-amplitude points of the light-energy distribution of the line and is measured with a peak current of 10 microamperes, using the slit-scan technique described in (W) reprint #5510. Line width with other phosphors may vary slightly. Dynamic focus modulation is necessary to maintain optimum resolution over entire face. Close control of supply regulation and ripple is necessary to ensure optimum focus. Typically, a 0.1% change in focus or anode voltage, from best value, will increase spot size approximately 10%.

7. With the tube shielded against external magnetic fields, the undeflected focused spot lies within a circle of 7.5 mm radius concentric with the faceplate.



Westinghouse TENTATIVE DATA





A. The plane defined by the tube axis and pin position 3 will be within 10° of the plane defined by the tube axis and the anode.