



TELEVISION PICTURE TUBE

DESCRIPTION

The 5TP4 is a five-inch electrostatic-focus and magnetic-deflection projection picture tube for television applications. It is designed for use with a reflective optical system. Features of this tube are

a reflective metal-backed screen which gives improved brightness, picture contrast and detail, and an external conductive coating on the neck which acts as a corona shield when grounded.

TECHNICAL INFORMATION

GENERAL

Electrical

Heater voltage	6.3 volts
Heater current	0.6 $\pm$ 10% ampere
Focusing method—electrostatic	
Deflecting method—magnetic	
Deflecting angle	50 max degrees
Phosphor—P4	
Fluorescence—white	
Persistence—medium	
Direct interelectrode capacitances, approximate	
Cathode to all other electrodes	5 uuf
Grid No. 1 to all other electrodes	7 uuf
External conductive coating to anode capacitance, approximate	300 uuf


Electronic
TUBE

GENERAL  ELECTRIC

Supersedes ET-T-419A dated 10-47

TECHNICAL INFORMATION (CONT'D)

Mechanical

Over-all length	11 $\frac{3}{4}$ $\pm$ $\frac{3}{8}$ inches
Greatest bulb diameter	5 $\pm$ $\frac{1}{8}$ inches
Minimum useful screen diameter	4 $\frac{1}{2}$ inches

Anode contact—recessed small-cavity cap, J1-21

Base—small-shell duodecal 7-pin, B7-51

Basing—12C

Base pin connections

Pin 1—heater

Pin 2—grid No. 1

Pin 6—anode No. 1

Pin 7—internal connection

Pin 10—grid No. 2

Pin 11—cathode

Pin 12—heater

Anode contact alignment

Anode No. 2 contact aligns with vacant pin No. 3 position $\pm$ 30 degrees

MAXIMUM RATINGS Design Center Values

Anode No. 2 voltage	27000 max	volts d-c
Anode No. 1 voltage	6000 max	volts d-c
Grid No. 2 voltage	350 max	volts d-c
Grid No. 1 voltage		
Negative-bias value	150 max	volts d-c
Positive-bias value	0 max	volt d-c
Positive-peak value	2 max	volts
Peak heater-cathode voltage*		
Heater negative with respect to cathode		
During warm-up period not to exceed 15 seconds	410 max	volts d-c
After equipment warm-up period	175 max	volts d-c
Heater positive with respect to cathode	10 max	volts d-c

RECOMMENDED OPERATING CONDITIONS

Anode No. 2 voltage	27000	volts
Anode No. 1 voltage	4320 to 5400	volts
Grid No. 2 voltage	200	volts
Grid No. 1 voltage**	-42 to -98	volts
Anode No. 2 current	200	microamperes
Anode No. 1 current	.75 max	microamperes
Grid No. 2 current	-15 to +15 max	microamperes

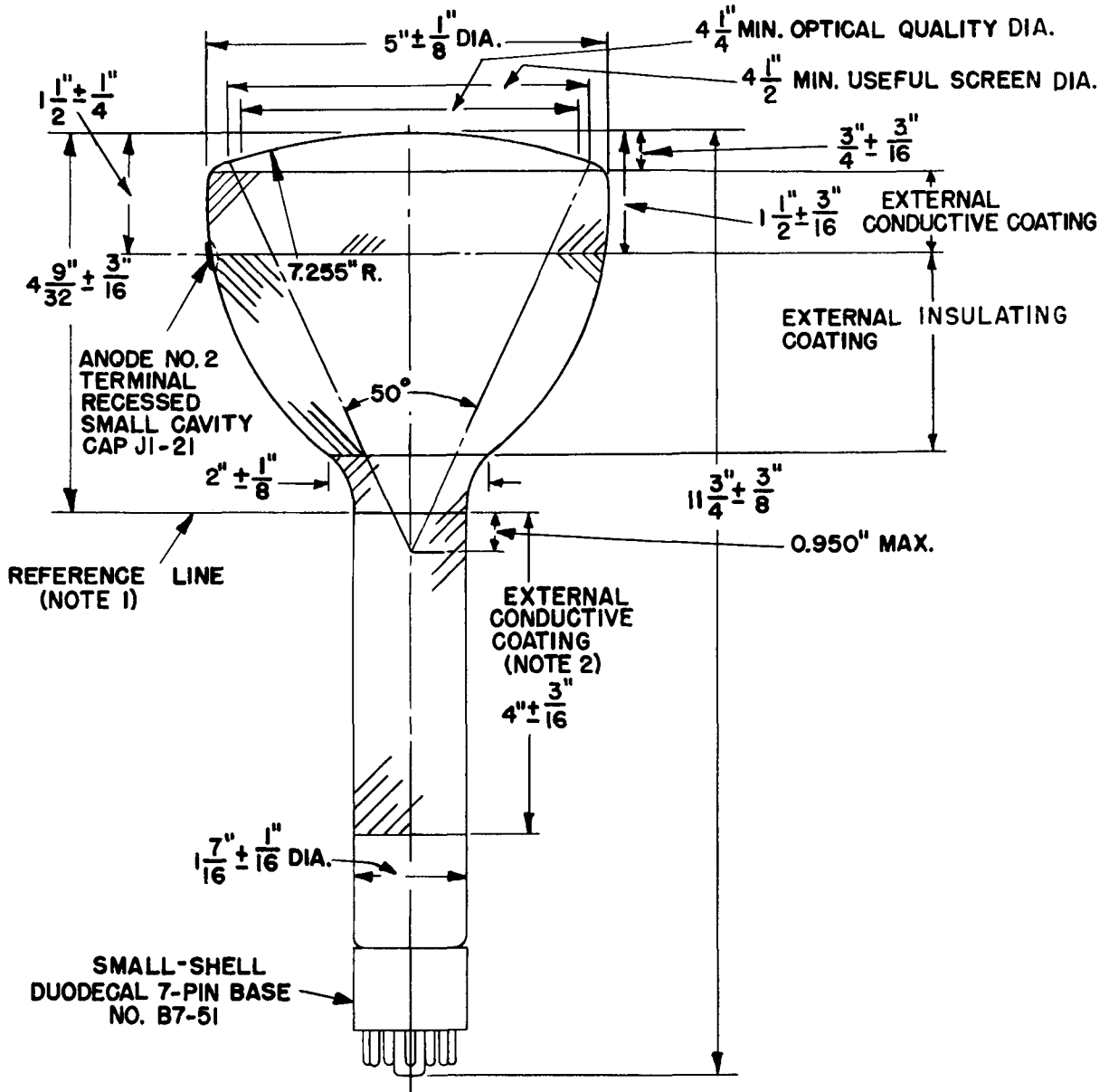
MAXIMUM CIRCUIT VALUES

Grid No. 1 circuit resistance	1.5 max	megohms
-------------------------------	---------	---------

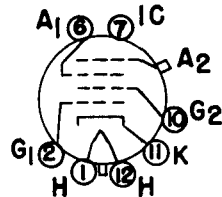
*Cathode should be returned to one side or to the midtap of the heater transformer winding.

**For visual extinction of undeflected focused spot.

OUTLINE
5TP4



ANODE-NO. 2 TERMINAL
ALIGNS WITH VACANT PIN-
NO. 3 POSITION $\pm 30^\circ$



BASING DIAGRAM

NOTES:

1. REFERENCE LINE IS DETERMINED BY THE PLANE OF THE UPPER EDGE OF THE REFERENCE LINE GAGE (RTMA NO. 112) WHEN THE GAGE IS RESTING ON THE GLASS CONE.

2. EXTERNAL CONDUCTIVE COATING MUST BE GROUNDED.