



25DN6

BEAM POWER TUBE

*Intended for use in equipment having
series heater-string arrangement*

25DN6

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage.	25	ac or dc volts
Current.	0.6	amp
Warm-up time (Average)	11	sec

For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.

Direct Interelectrode Capacitances (Approx.):⁰

Grid No.1 to plate	0.8	$\mu\mu\text{f}$
Grid No.1 to cathode & grid No.3, grid No.2, and heater.	22	$\mu\mu\text{f}$
Plate to cathode & grid No.3, grid No.2, and heater	11.5	$\mu\mu\text{f}$

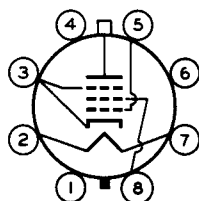
Characteristics, Class A₁ Amplifier:

Plate Voltage.	50	125	volts
Grid-No.2 (Screen-Grid) Voltage.	100	125	volts
Grid-No.1 (Control-Grid) Voltage	0	-18	volts
Mu Factor, Grid No.2 to Grid No.1.	-	4.35	
Plate Resistance (Approx.)	-	4000	ohms
Transconductance	-	9000	μmhos
Plate Current.	240*	70	ma
Grid-No.2 Current.	30*	6.3	ma
Grid-No.1 Voltage (Approx.) for plate current of 0.5 ma.	-	-36	volts

Mechanical:

Operating Position	Vertical, base up or down, or Horizontal with pins 1 and 3 in vertical plane
Maximum Overall Length	5"
Seated Length.	4-1/4" $\pm$ 3/16"
Maximum Diameter	1-9/16"
Bulb	T12
Cap.	Small (JETEC No.C1-1)
Base	Short Medium-Shell Octal 8-Pin with External Barriers, Style B (JETEC No.B8-118)
Basing Designation for BOTTOM VIEW	5BT

Pin 1 - No Connec-
tion
Pin 2 - Heater
Pin 3 - Cathode,
Grid No.3
Pin 4 - No Connec-
tion



Pin 5 - Grid No.1
Pin 6 - No Connec-
tion
Pin 7 - Heater
Pin 8 - Grid No.2
Cap - Plate

⁰, *: See next page.



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HORIZONTAL DEFLECTION AMPLIFIER

Maximum Ratings, Design-Center Values Except as Noted:*For operation in a 525-line, 30-frame system[□]*

DC PLATE VOLTAGE	700	max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE (Absolute maximum) [⊕]	6600 [■]	max.	volts
PEAK NEGATIVE-PULSE PLATE VOLTAGE	1500	max.	volts
DC GRID-No.2 (SCREEN-GRID) VOLTAGE	175	max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 VOLTAGE	200	max.	volts
CATHODE CURRENT:			
Peak	700	max.	ma
Average	200	max.	ma
GRID-No.2 INPUT	3	max.	watts
PLATE DISSIPATION [†]	15	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200 [▲]	max.	volts
BULB TEMPERATURE (At hottest point on bulb surface)	225	max.	°C

Maximum Circuit Values:**Grid-No.1-Circuit Resistance:**For grid-resistor-bias operation[†] 0.47 max. megohm[□] Without external shield.^{*} These values can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.[□] As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations", Federal Communications Commission.[⊕] This rating is applicable when the duration of the voltage pulse does not exceed 15 per cent of one horizontal scanning cycle. In a 525-line, 30-frame system, 15 per cent of one horizontal scanning cycle is 10 microseconds.[■] Under no circumstances should this absolute value be exceeded.[†] It is essential that the plate dissipation be limited in the event of loss of grid-No.1 signal. For this purpose, some protective means such as a cathode resistor of suitable value should be employed.[▲] The dc component must not exceed 100 volts.



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