



TOSHIBA ELECTRON TUBE 8530

SHARP-CUTOFF PENTODE

The Toshiba 8530 is a heater-cathode type sharp-cutoff pentode of micro metal miniature construction with metal shell and ceramic stem to adapt standard 8-pin subminiature socket.

It is designed primarily for use as an RF or IF amplifier in high-frequency up to 400 Mc broad-band circuits of industrial and military airborne equipment which may be subjected to severe shock and vibration.

In on-off control applications, the tube will maintain its emission capabilities after long periods of operation under cutoff conditions.



GENERAL DATA

ELECTRICAL :

Cathode: Coated unipotential

Heater voltage	6.3	V
Heater current	0.15	A

Direct interelectrode capacitances:

No. 1 grid to plate	0.015	PF
Input	4.2	PF
Output	3.4	PF

MECHANICAL :

Operating position	Any
Maximum overall length	1.082"
Maximum seated length	0.867"
Maximum diameter	0.434"
Bulb	Metal shell
Base	E8-9 (ceramic)

MAXIMUM RATINGS; Absolute maximum values:

Class A1 amplifier

Plate voltage	165 max.	V
No. 3 grid voltage	22 max.	V
No. 2 grid voltage	155 max.	V
Negative dc No. 1 grid voltage	55 max.	V
Positive dc No. 1 grid voltage	0 max.	V
Plate dissipation	1.1 max.	W
No. 2 grid dissipation	0.55 max.	W
DC cathode current	16.5 max.	mA



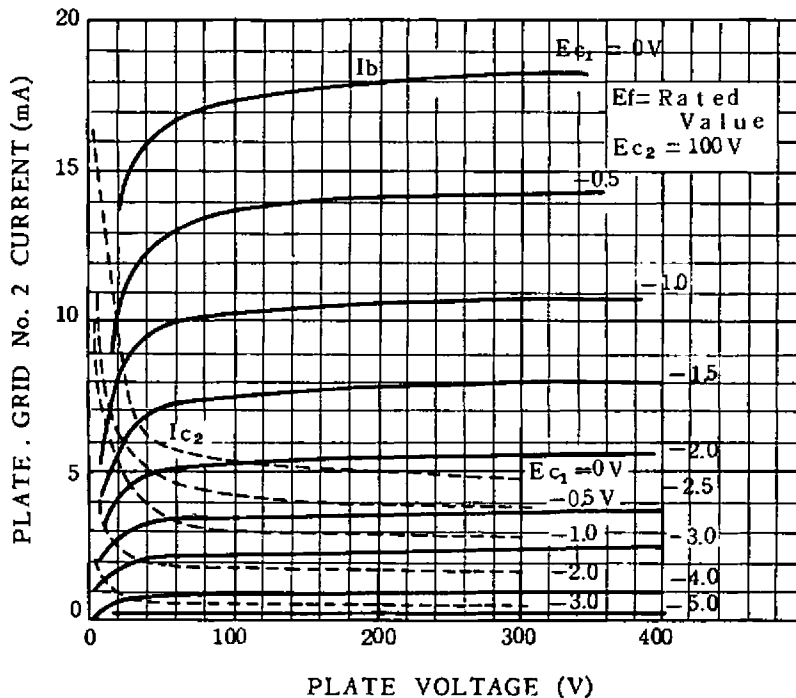
TOSHIBA ELECTRON TUBE

Heater-cathode voltage		
Heater positive, total dc and peak	200 max.	V
Heater negative, total dc and peak	200 max.	V
Bulb temperature at hottest point on bulb surface		
	220 max.	°C
No. 1 grid circuit resistance		
For cathode bias operation	1.1 max.	MΩ
Altitude	80000 max.	Feet

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS: Class A1 amplifier

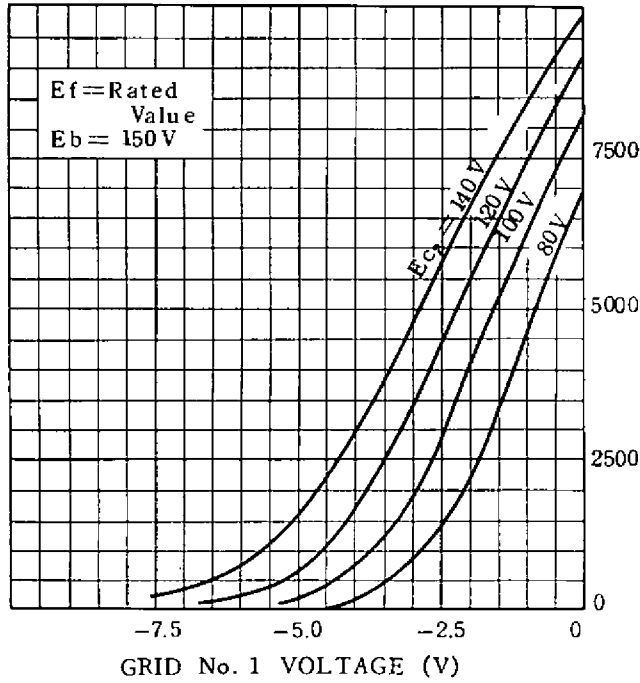
Plate voltage	100	V
No. 2 grid voltage	100	V
Cathode bias resistor	150	Ω
Plate resistance, (Approx.)	0.26	MΩ
Transconductance	5000	μS
Plate current	7.5	mA
No. 2 grid current	2.4	mA
No. 1 grid voltage, (Approx., for plate current of 10 μA	-9.0	V

AVERAGE PLATE CHARACTERISTICS

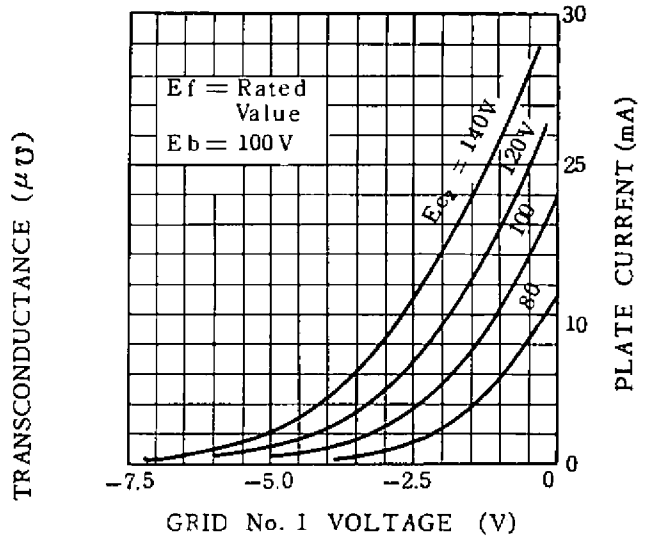


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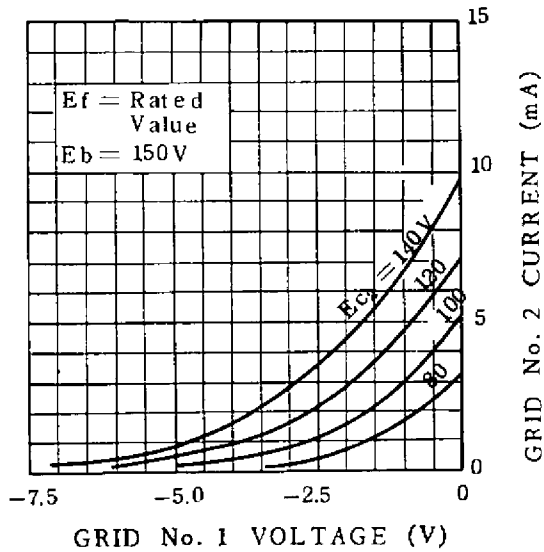
AVERAGE GRID CHARACTERISTICS



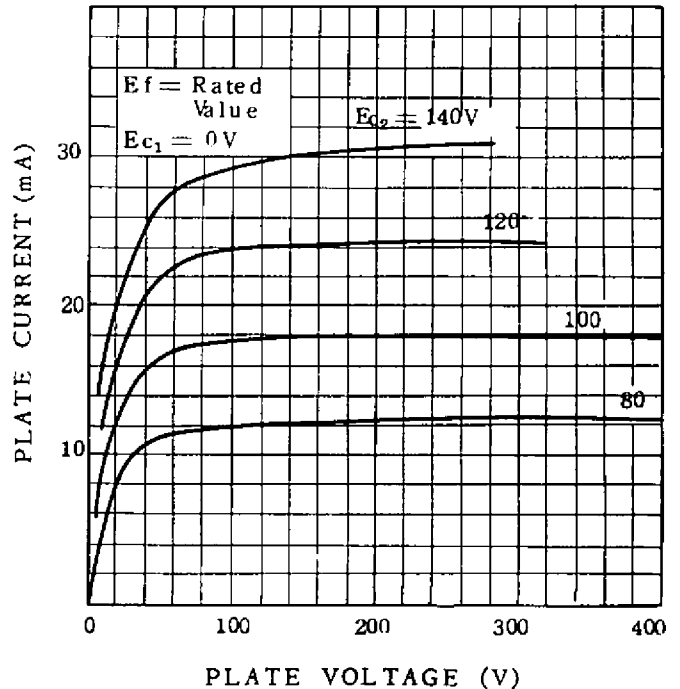
AVERAGE GRID CHARACTERISTICS



AVERAGE GRID CHARACTERISTICS



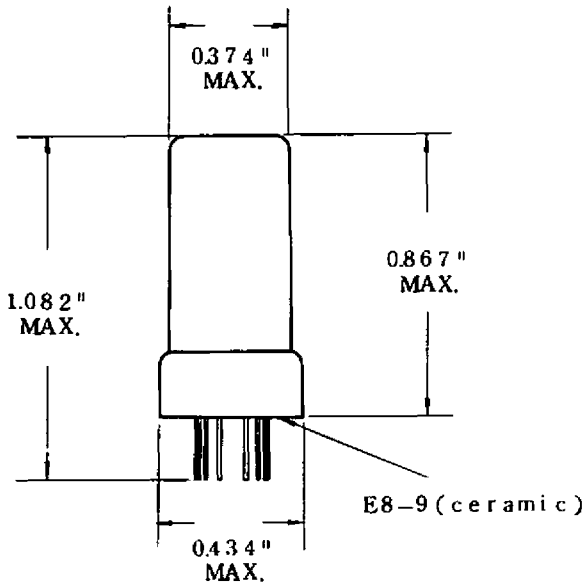
AVERAGE PLATE CHARACTERISTICS



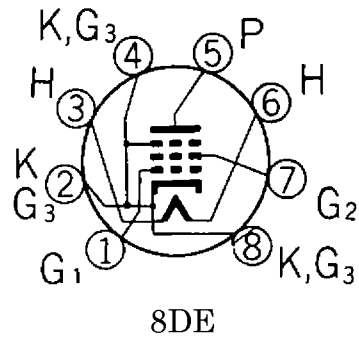
Toshiba

TOSHIBA ELECTRON TUBE

8530
DIMENSIONAL OUTLINE:
Dimensions in Inches



8530
BASING DIAGRAM:
Bottom View



- Pin 1: No. 1 Grid
- Pin 2: No. 3 Grid, Cathode
- Pin 3: Heater
- Pin 4: No. 3 Grid, Cathode
- Pin 5: Plate
- Pin 6: Heater
- Pin 7: No. 2 Grid
- Pin 8: No. 3 Grid, Cathode

All inquiries as to the data should be addressed to Tube and Semiconductor Division,
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