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May 18, 1964

Toshiba

TOSHIBA ELECTRON TUBE 8529

SEMI-REMOTE-CUTOFF PENTODE

The Toshiba 8529 is a heater-cathode type semi-remote-cutoff pentode of micro metal miniature construction with metal shell and ceramic stem to adapt standard 8-pin subminiature socket.
It is designed particularly for use including wide-band, high-frequency amplifier, and AGC amplifier. It is suitable for use in industrial and military airbone equipment which may be subjected to severe shock and vibration. In on-off control applications, the tube will maintain its 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 max.	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:

Plate voltage	165 max.	V
No. 2 grid voltage	155 max.	V
Negative dc No. 1 grid voltage	55 max.	V
Plate dissipation (Design-maximum value)	0.85 max.	W
No. 2 grid dissipation (Design-maximum value)	0.25 max.	W
DC cathode current	16.5 max.	mA

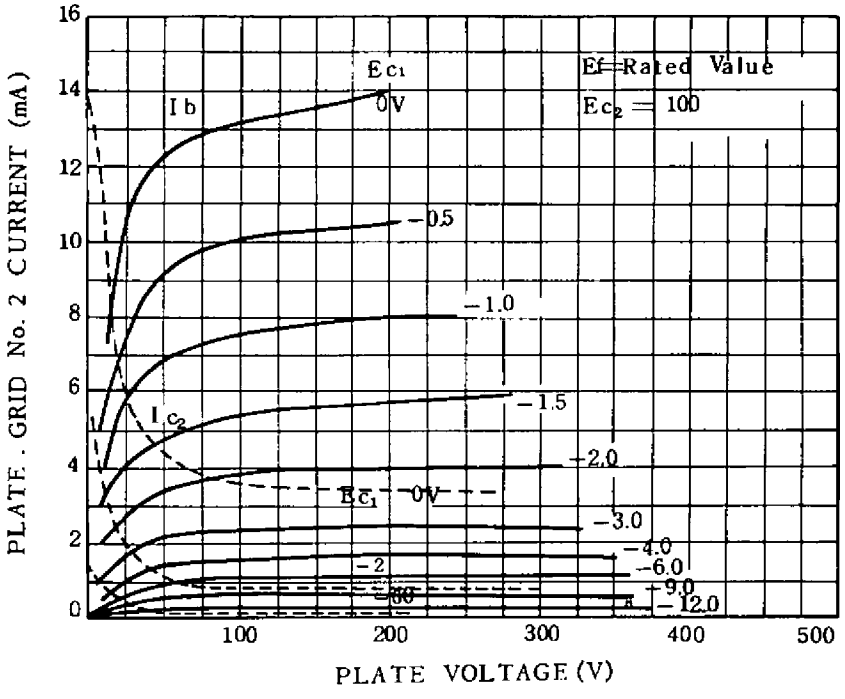
Heater-cathode voltage		
Heater positive, total dc and peak	200 max.	V
Heater negative, total dc and peak	200 max.	V
Bulb temperature at hottest point on bulb surface	220 max.	°C
No. 1 grid circuit resistance	1.1 max.	MΩ
Altitude	80000 max.	Feet

TYPICAL OPERATING CONDITIONS AND CHARACTERISTICS:

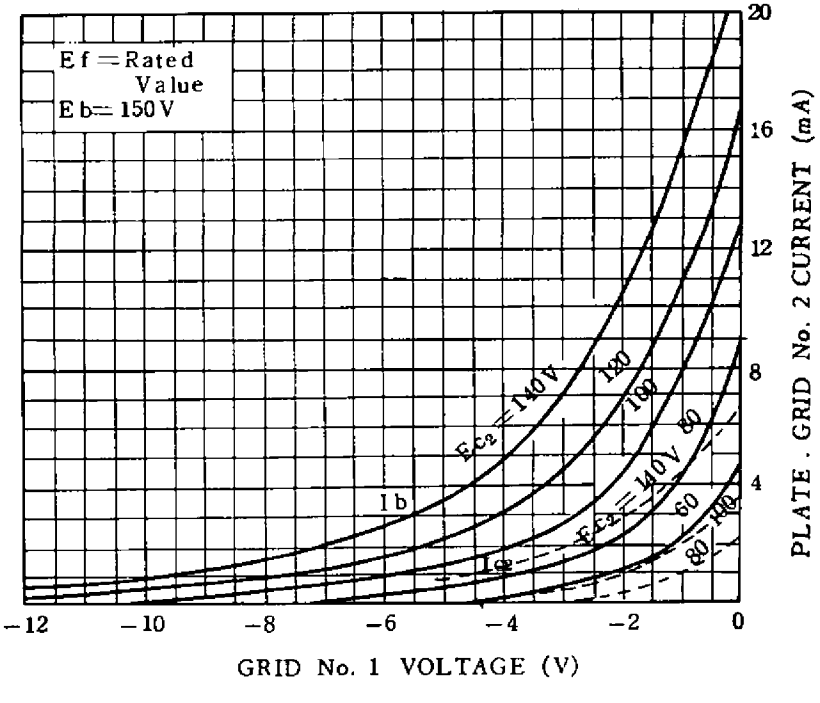
Class A1 amplifier

Plate voltage	100	V
No. 2 grid voltage	100	V
Cathode-bias resistor	120	Ω
Plate resistance (Approx.)	0.26	MΩ
Transconductance	4500	μ℧
Plate current	7.2	mA
No. 2 grid current	2.0	mA
No. 1 grid voltage (Approx.) for gm = 25 μ℧	-14	V

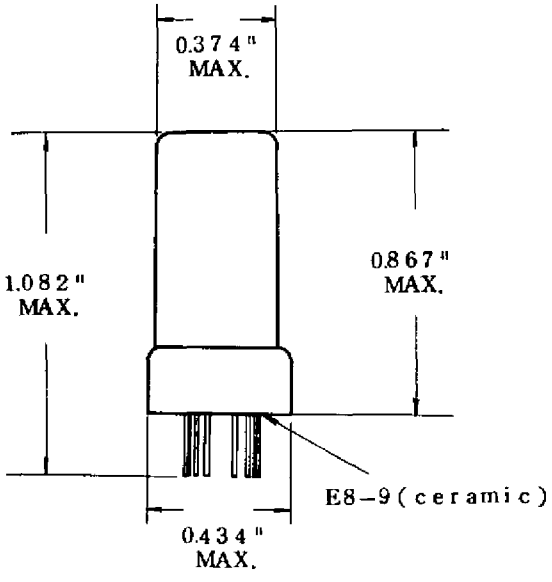
AVERAGE PLATE CHAEACTERISTICS



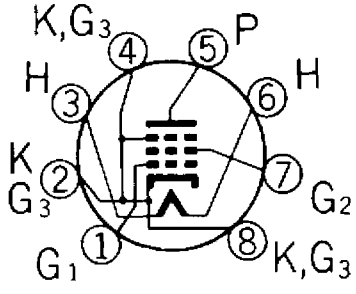
AVERAGE PLATE CHARACTERISTICS



8529
DIMENSIONAL OUTLINE:
Dimensions in Inches



8529
BASING DIAGRAM:
Bottom View



8DE

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, Tokyo Shibaura Electric Co., Ltd., 12, 1-chome, Yuraku-cho, Chiyoda-ku, Hibiya Mitsui Building, Tokyo, Japan.