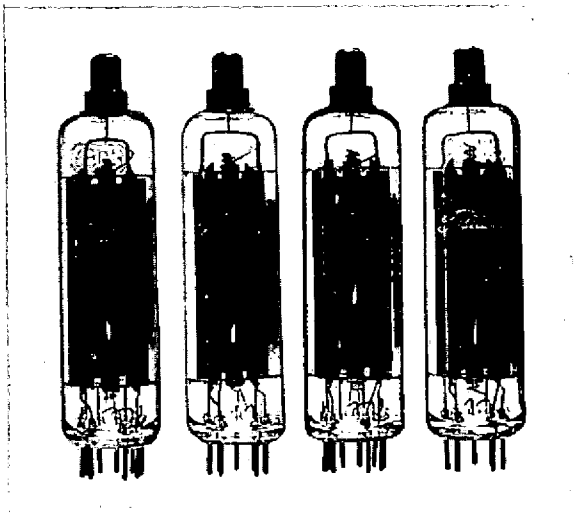
TOKYO SHIBAURA ELECTRIC CO., LTD.
KAWASAKI JAPAN

Toshiba

EIA REGISTRATION DATA

Type 6BR3 12BR3 17BR3 25BR3

Date issued Aug. 31 1962



Toshiba 6BR3, 12BR3, 17BR3, and 25BR3 are 9 pin miniature heater cathode type diode designed for use as damping diode in horizontal deflection circuit of television receivers.

As the cathode is connected to top cap and is capable high output current, they are especially convenient for design of television receivers.

They also withstand high pulse voltage between the heater and cathode and high inverse pulse voltage between the plate and cathode.

These characteristics make the tube especially suitable horizontal circuit in large deflection type television receivers.

Except for heater ratings, the 12BR3, 17BR3 and 25BR3 are identical to the 6BR3.

The 12BR3, 17BR3 and 25BR3 are controlled heater warm-up characteristic which makes them suited for use in television receivers that employ series connected heater.

GENERAL DATA

Electrical :

Heater, for unipotential cathode :	*6BR3*	*12BR3*	*17BR3*	*25BR3*	
Voltage (AC and DC)	*6.3*	*12.6*	*16.8*	*25.0*	*volts*
Current	*1.2*	*0.60*	*0.45*	*0.30*	*Amperes*
Heater warm up time	*Approx. —*	*11*	*11*	*11*	*Seconds*

Direct Interelectrode Capacitances (without external shield) :		
Heater to Cathode	*3.0*	*μμf*
Cathode to Plate and Heater	*10.5*	*μμf*
Plate to Cathode and Heater	*8.5*	*μμf*

Printed in Japan

Mechanical :

Operating Position	Any
Maximum Overall Length	3½"
Maximum Seated Height	3¼"
Maximum Diameter	⅞"
Bulb	T-6½
Base	E9-1
Top Base	C1-3

Maximum Ratings (Design Maximum Values) :

TV Damper service for operating in a 525 line, 30 frame system.

Peak Inverse Plate Voltage*	5500	volts Max.
Peak Plate Current	1200	ma Max.
DC Plate Current	200	ma Max.
Plate Dissipation	6.5	Watts Max.
Peak Heater to Cathode Voltage		
Heater Negative with Respect to Cathode**	5500	volts Max.
Heater Positive with Respect to Cathode***	300	volts Max.
Bulb Temperature (at Hottest Point)	180	°C Max.

* The duration of the voltage pulse should not exceed 15% of one horizontal scanning cycle. In 525-Line, 30-Frame system, 15% of one horizontal scanning cycle is 10 microseconds.

** The DC component must not exceed 900 volts.

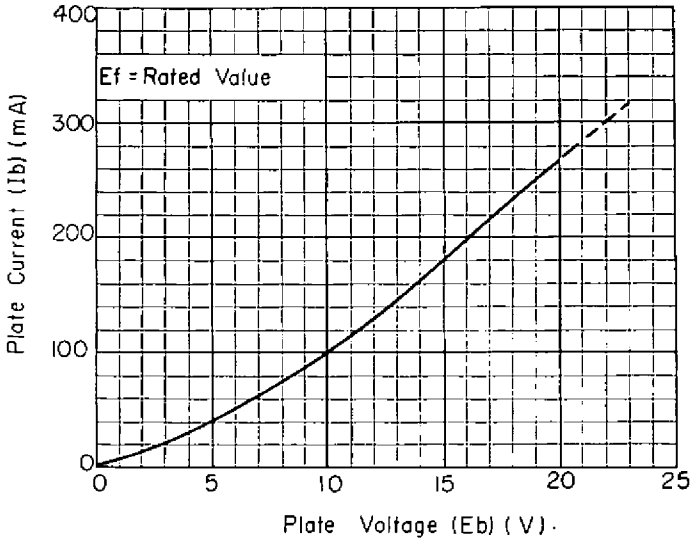
*** The DC component must not exceed 100 volts.

Average Characteristics :

Tube Voltage Drop Ib=250 mA DC	19	volts

6BR3 12BR3 17BR3 25BR3

Average Plate Characterstics



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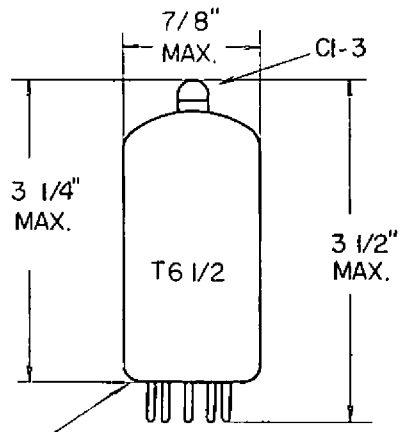
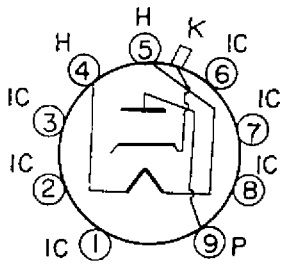
6BR3 12BR3 17BR3 25BR3
DIMENSIONAL OUTLINE



6BR3 12BR3 17BR3 25BR3
SOCKET CONNECTIONS
Bottom View

Pin 1 : Internal Connection
Pin 2 : Same as Pin 1
Pin 3 : Same as Pin 1
Pin 4 : Heater
Pin 5 : Heater



Pin 6 : Same as Pin 1
Pin 7 : Same as Pin 1
Pin 8 : Same as Pin 1
Pin 9 : Plate
Cap : Cathode

9CB

All inquiries as to the data should be addressed to Tokyo Shibaura Electric Co., Ltd., Lamp and Tube Manufacturing and Sales Division, 72 Horikawacho, Kawasaki, Kanagawa-ken, Japan.