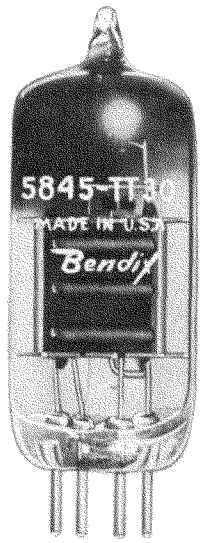
5845
Bendix Type TT-30

MINIATURE TEMPERATURE LIMITED DIODE



DESCRIPTION

This temperature limited diode is designed for use in voltage regulator applications or for use in circuits requiring a tube with temperature limited emission characteristics. Temperature limited operation of the tube causes anode current to become a direct function of filament voltage, and thus small changes in applied filament voltage will produce relatively large changes in anode current. The use of a pure tungsten filament permits continuous use of the tube in the temperature limited region without change or damage to the filament during the life of the tube. The tube includes a fail safe device which causes a heater to anode short should the heater open.

PHYSICAL CHARACTERISTICS

Base	E7-1 (7 Pin miniature)
Bulb	T-5½
Outline	5-2
Max. overall length	2⅛ in.
Max. diameter	¾ in.
Mounting position	
Vertical	Base up or down
Horizontal	Pins 3 and 4 in a vertical plane

RATINGS

Anode Voltage	250 Vdc
Anode Current (1)	50 uAdc
Filament Voltage (2)	3Vac or dc
Filament Current	365 mAac or dc
Anode Load Resistor	1 megohm

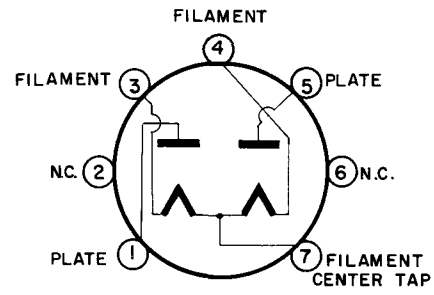
MAXIMUM RATINGS (3)

The ratings given above should be closely followed when the tube is used in circuits where stable operating characteristics and long service life are of prime importance. However, the ratings can be increased to the absolute limits specified below with a corresponding reduction in stability of operating characteristics and decrease in service life. (Refer to graphs on the reverse side of this sheet.)

Anode Voltage	300 Vdc
Anode Current (1)	2.0 mAdc
Filament Voltage (2)	5 Vac or dc

NOTES:

1. Plates connected together at socket.
2. Filaments connected in series.
3. Maximum on time with a 50% duty cycle is 5 minutes.



BASE DIAGRAM
(BOTTOM VIEW)

THE Bendix CORPORATION
Red Bank DIVISION, EATONTOWN, NEW JERSEY

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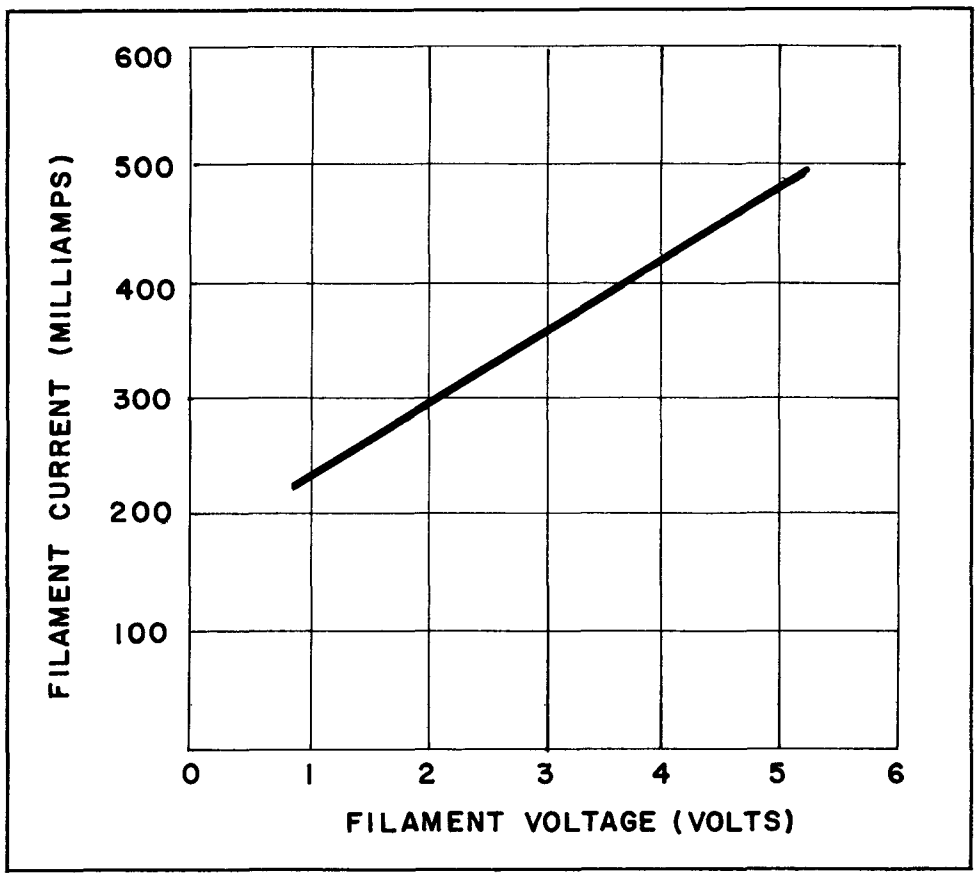
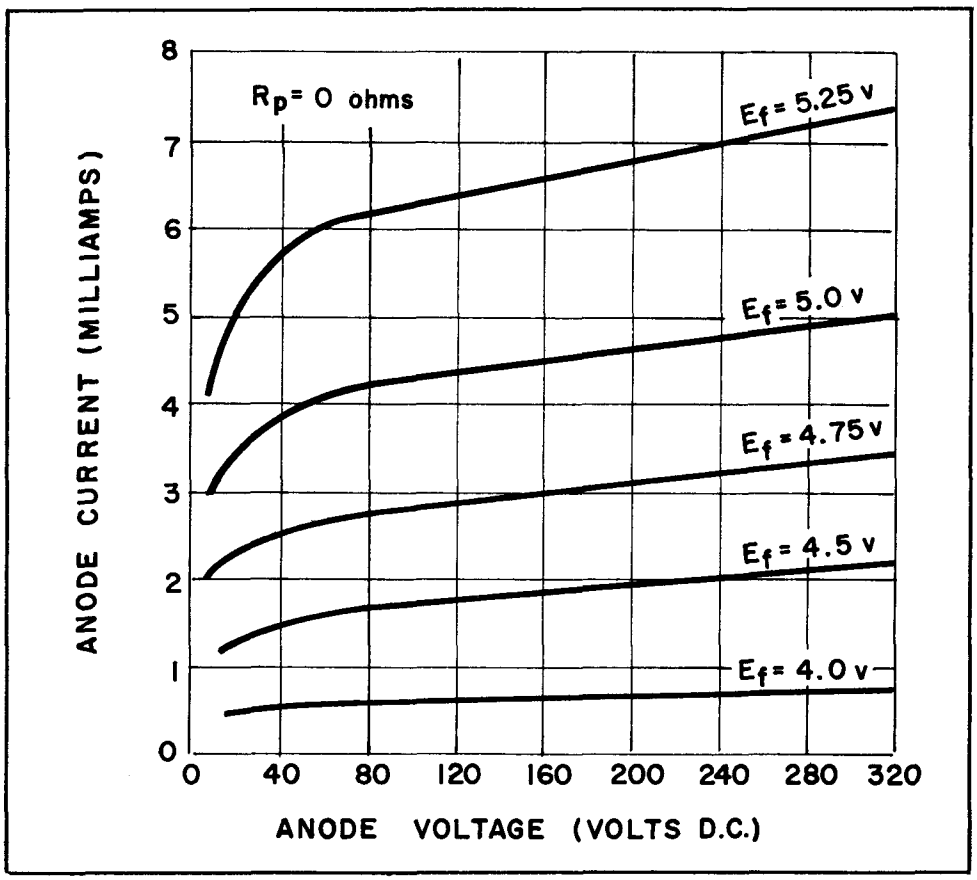


AVERAGE FILAMENT CHARACTERISTICS



AVERAGE SATURATION CHARACTERISTICS

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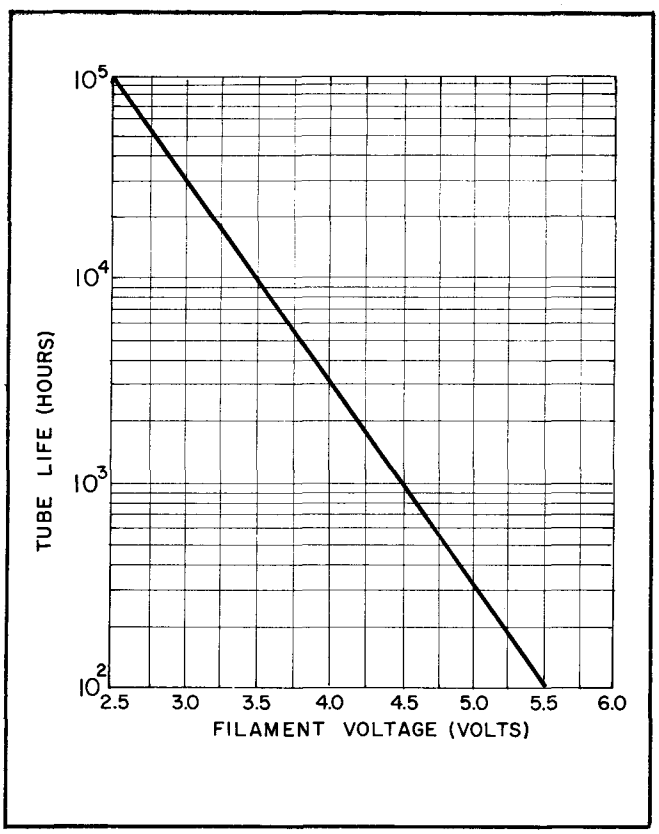
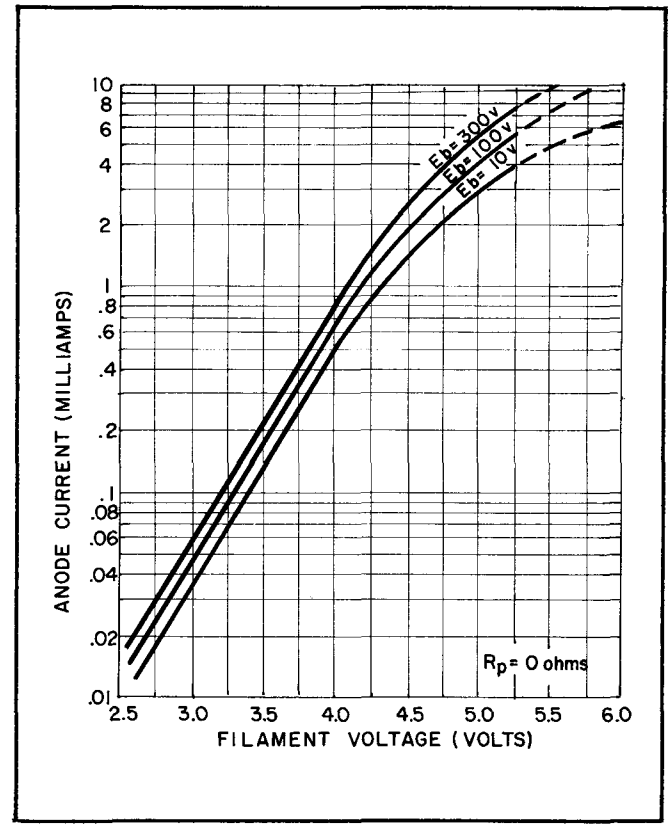
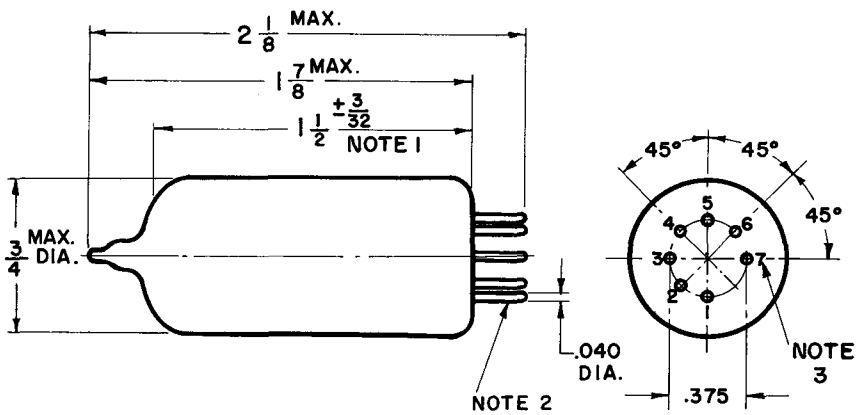


NORMAL LIFE EXPECTANCY
VS
APPLIED FILAMENT VOLTAGE



AVERAGE EMISSION CHARACTERISTICS



NOTES:

1. MEASURED AT 7/16 DIA. ON BULB.
2. TO FIT JAN-S-28 MINIATURE 7 PIN SOCKET.
3. NUMBERS INDICATE PIN LOCATIONS IN ACCORDANCE WITH RTMA STANDARDS AND ARE FOR REFERENCE ONLY.

OUTLINE DRAWING