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TWIN DIODE

7-PIN MINIATURE TYPE

For switching applications in electronic computers

GENERAL DATA

Electrical:

Heater, Pure Tungsten, for Unipotential Cathodes:

Voltage. 6.3 ac or dc volts

Current. 0.2 amp

Direct Interelectrode Capacitances (Each unit, approx.):^o

Plate to cathode 1.4 $\mu\mu\text{f}$

Plate to cathode, internal shield, and

heater 2.2 $\mu\mu\text{f}$

Cathode to plate, internal shield, and

heater 3.5 $\mu\mu\text{f}$

Heater to cathode. 2.1 $\mu\mu\text{f}$

Mechanical:

Mounting Position. Any

Maximum Overall Length 1-5/8"

Maximum Seated Length. 1-3/8"

Length, Base Seat to Bulb Top (Excluding tip). . . 1" \pm 3/32"

Maximum Diameter 3/4"

Bulb T5-1/2

Base Small-Button Miniature 7-Pin (JETEC No.E7-1)

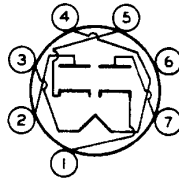
Basing Designation for BOTTOM VIEW6BT

Pin 1 - Cathode of Unit No.1

Pin 2 - Plate of Unit No.2

Pin 3 - Heater

Pin 4 - Heater



Pin 5 - Cathode of Unit No.2

Pin 6 - Internal Shield

Pin 7 - Plate of Unit No.1

SWITCHING SERVICE

Values are for Each Unit

Maximum Ratings, Absolute Values:

PEAK INVERSE PLATE VOLTAGE 360 max. volts

PEAK PLATE CURRENT[■]. 30 max. ma

DC PLATE CURRENT 10 max. ma

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode. 150 max. volts

Heater positive with respect to cathode. 150 max. volts

BULB TEMPERATURE (At hottest point on bulb surface). 120 max. °C

CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

Note Min. Max.

Heater Current 1 180 220 ma

Note 1: With 6.3 volts ac or dc on heater.

^o Without external shield.

[■]: See next page.

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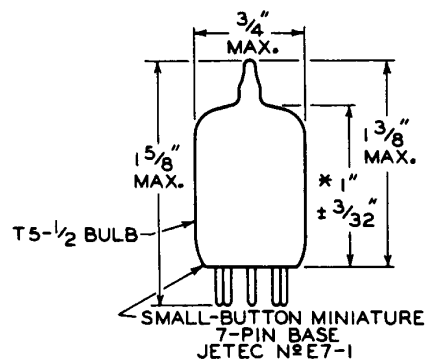
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	Note	Min.	Max.	
Direct Interelectrode Capacitance (Each unit):				
Plate to cathode	2	-	2	μf
Plate Current (Each unit)	1,3	3	9	ma
Heater-Cathode Leakage Current (Each unit):				
Heater negative with respect to cathode	1,4	-	20	μa
Heater positive with respect to cathode	1,4	-	20	μa
Leakage Resistance between plate and all other electrodes tied together (Each unit)	1,5	100	-	megohms
Note 1: With 6.3 volts ac or dc on heater.				
Note 2: Without external shield and with electrodes of unit not under test connected to ground.				
Note 3: With dc plate volts = 1.2. Electrodes of unit not under test connected to ground.				
Note 4: With 150 volts dc between heater and cathode.				
Note 5: With plate 300 volts negative with respect to all other electrodes tied together.				

SPECIAL RATINGS & PERFORMANCE DATA

Heater-Cycling Life Performance:

Cycles of Intermittent Operation. . . . 2000 min. cycles
Under the following conditions: heater volts = 7.5 cycled
one minute on and four minutes off, heater 180 positive
with respect to cathode, and plate volts = 0.



■ Under the following conditions: rectangular pulse; pulse duration, 10 microseconds; pulse-repetition rate, 1000 pps; duty factor, 0.01 ± 0.1 per cent; rise time, less than 1 microsecond; fall time, less than 2 microseconds; overshoot, less than 5 per cent; and droop, less than 10 per cent.

* Measured from base seat to bulb-top line as determined by ring gauge of 7/16" I.D.

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TUBE DIVISION

TENTATIVE DATA

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



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