



6887

6887

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.):^oPlate to cathode 1.4 μf Plate to cathode, internal shield, and
heater 2.2 μf Cathode to plate, internal shield, and
heater 3.5 μf Heater to cathode. 2.1 μf **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

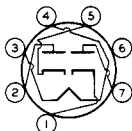
Base Small-Button Miniature 7-Pin (JETEC No. E7-1)

Basing Designation for BOTTOM VIEW 6BT

Pin 1 - Cathode of
Unit No.1Pin 2 - Plate of
Unit No.2

Pin 3 - Heater

Pin 4 - Heater

Pin 5 - Cathode of
Unit No.2Pin 6 - Internal
ShieldPin 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.



6887

TWIN DIODE

	Note	Min.	Max.	
Direct Interelectrode Capacitance (Each unit):				
Plate to cathode.	2	—	2	μmf
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.

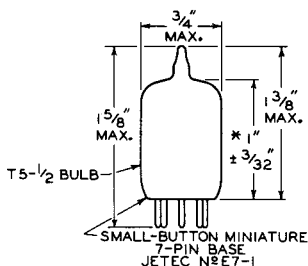
Note 5: With plate 300 volts negative with respect to all other electrodes tied together.

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.



6887

6887

TWIN DIODE

AVERAGE PLATE CHARACTERISTIC
EACH UNIT

