



6663

6663/6AL5 TWIN DIODE

7-PIN MINIATURE TYPE

For use in mobile communications equipment

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage. 6.3 ± 20%* ac or dc volts

Current at 6.3 volts 0.3 amp

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield^o</i>	
Plate to cathode, internal shield, and heater (Each unit).	2.5	3.2	μf
Cathode to plate, internal shield, and heater (Each unit).	3.4	3.6	μf
Plate of unit No.1 to plate of unit No.2	0.068 max.	0.026 max.	μf

Mechanical:

Operating Position. Any

Maximum Overall Length. 1-3/4"

Maximum Seated Length 1-1/2"

Length, Base Seat to Bulb Top (Excluding tip). * 1-1/8" ± 3/32"

Diameter. 0.650" to 0.750"

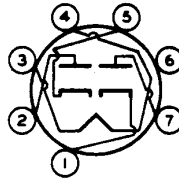
Dimensional Outline See *General Section*

Bulb. T5-1/2

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

Basing Designation for BOTTOM VIEW. 6BT

- 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

RECTIFIER

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

PEAK INVERSE PLATE VOLTAGE. 275 max. volts

PEAK PLATE CURRENT. 60 max. ma

PEAK PLATE CURRENT (For pulse duration of 0.1 second maximum). 350 max. ma

DC PLATE CURRENT. 10 max. ma

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode 275 max. volts

Heater positive with respect to cathode 100 max. volts

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Characteristics:

Heater Voltage	6.3	volts
Plate Voltage	10	volts
Plate Current	60	ma

* When the heater is operated from storage-battery-with-charger supply or similar supplies, the normal battery-voltage fluctuation may be as much as 35 per cent or more. Although such variation in heater voltage is permissible for short periods, reliability can be increased with improved supply-voltage regulation.

o With external shield JEDEC No. 316 connected to pin 6.

SPECIAL RATINGS & PERFORMANCE DATA

Heater-Cycling Life Performance:

This test is performed on a sample lot of tubes from each production run. A minimum of 2000 cycles of intermittent operation is applied under the following conditions: heater volts = 7.5 cycled one minute on and one minute off, heater 135 volts positive with respect to cathode, and all other elements connected to ground. At the end of this test, tubes are checked for heater-cathode shorts and open circuits.