



**12AL5  
TWIN DIODE**  
MINIATURE TYPE

12AL5

GENERAL DATA

**Electrical:**

Heater, for Unipotential Cathodes:

Voltage . . . . .	12.6 . . . . .	ac or dc volts
Current . . . . .	0.15 . . . . .	amp

Direct Interelectrode Capacitances:

Plate No.1 to Cathode No.1, Heater, and Internal Shield* . . . . .	3.2 . . . . .	$\mu$ f
Plate No.2 to Cathode No.2, Heater, and Internal Shield <sup>▲</sup> . . . . .	3.2 . . . . .	$\mu$ f
Cathode No.1 to Plate No.1, Heater, and Internal Shield <sup>★</sup> . . . . .	3.6 . . . . .	$\mu$ f
Cathode No.2 to Plate No.2, Heater, and Internal Shield <sup>●</sup> . . . . .	3.6 . . . . .	$\mu$ f
Plate No.1 to Plate No.2 <sup>●</sup> . . . . .	0.026 max.	$\mu$ f

- \* With close-fitting external shield connected to Cathode No.1.
- ▲ With close-fitting external shield connected to Cathode No.2.
- ★ With close-fitting external shield connected to Plate No.1.
- With close-fitting external shield connected to Plate No.2.
- With close-fitting external shield connected to ground.

**Mechanical:**

Mounting 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" $\pm$ 3/32"
Maximum Diameter . . . . .	3/4"
Bulb . . . . .	T-5-1/2
Base . . . . .	Small-Button Miniature 7-Pin
Basing Designation for BOTTOM VIEW . . . . .	6BT

Pin 1 - Cathode, Diode No.1		Pin 5 - Cathode, Diode No.2
Pin 2 - Plate, Diode No.2		Pin 6 - Internal Shield
Pin 3 - Heater		Pin 7 - Plate, Diode No.1
Pin 4 - Heater		

RECTIFIER

**Maximum Ratings, Design-Center Values:**

PEAK INVERSE PLATE VOLTAGE . . . . .	330 max.	volts
PEAK PLATE CURRENT PER PLATE . . . . .	54 max.	ma.
DC OUTPUT CURRENT PER PLATE . . . . .	9 max.	ma.
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	330 max.	volts
Heater positive with respect to cathode	330 max.	volts

**Typical Operation as Half-Wave Rectifier<sup>□</sup>:**

RMS Plate Voltage per Plate . . . . .	117 . . . . .	volts
Min. Total Effective Plate-Supply Impedance per Plate . . . . .	300 . . . . .	ohms
DC Output Current per Plate . . . . .	9 . . . . .	ma.

*Curves shown under Type 6AL5 also apply to the 12AL5*

<sup>□</sup> In half-wave service, the two units may be used separately or in parallel.