

Type 6663/6AL5 is designed specifically for use in mobile communications equipment. The 6663/6AL5 may be operated without serious degradation under normal variations in supply voltage as encountered with automotive electrical systems. Also consistent with the requirements of the equipment, the tube is capable of withstanding appreciable on-off cycling.

### MECHANICAL DATA

Bulb . . . . .	T-5½
Base . . . . .	E7-1, Miniature Button 7-Pin
Outline . . . . .	5-1
Basing . . . . .	6BT
Cathode . . . . .	Coated Unipotential
Mounting Position . . . . .	Any

### ELECTRICAL DATA

#### HEATER CHARACTERISTICS

Heater Voltage <sup>1</sup> . . . . .	6.3 Volts	
Heater Current . . . . .	300 Ma	
Heater-Cathode Voltage (Design Center Values)		
Heater Negative with Respect to Cathode . . . . .	275 Volts	Max.
Heater Positive with Respect to Cathode . . . . .	100 Volts	Max.

#### DIRECT INTERELECTRODE CAPACITANCES

	Shielded	Unshielded
Plate Input (Each Section) . . . . .	3.2	2.5 μmf
Plate to Plate . . . . .	.026	.068 μmf
Cathode Input (Each Section) . . . . .	3.6	3.4 μmf

#### RATINGS (Design Center Values)

Peak Inverse Plate Voltage . . . . .	275 Volts	Max.
Peak Plate Current Per Plate <sup>2</sup> . . . . .	350 Ma	Max.
DC Output Current Per Plate . . . . .	10 Ma	Max.
Steady State Peak Plate Current Per Plate . . . . .	60 Ma	Max.

#### CHARACTERISTICS

Voltage Drop at Ib = 60 Ma Per Plate . . . . .	10 Volts
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#### TYPICAL OPERATION

AC Plate Voltage Per Plate . . . . .	117 Volts	
Effective Plate Supply Impedance Per Plate . . . . .	300 Ohms	Max.
DC Output Current Per Plate . . . . .	9.0 Ma	

#### SPECIAL TESTS AND RATINGS

##### Heater Cycling Rating

Cycles of Intermittent Operation (Minimum) . . . . .	2000 Cycles
E <sub>f</sub> = 7.5 volts cycled for one minute on and one minute off.	
E <sub>b</sub> = 0 volts, E <sub>hk</sub> = 135 volts with heater positive with respect to cathode.	

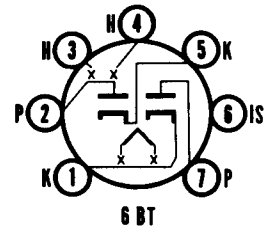
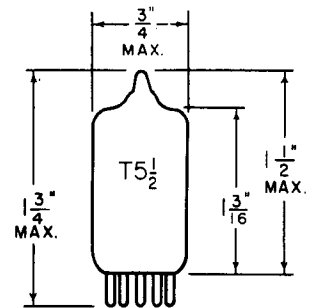
#### NOTES:

- When operated from automotive electrical systems, the heater may be subjected to voltage variations as great as ± 20 percent. Although such extremes in heater voltage may be tolerated for short periods, increased equipment reliability can be achieved with improved supply-voltage regulation.
- Maximum duration 0.1 second.

### QUICK REFERENCE DATA

Sylvania Type 6663/6AL5 is designed specifically for mobile operation. It is a T-5½ duo diode intended for use in circuits as a clipper, clamper, isolator, switching device, detector, or FM discriminator.

Type 6663/6AL5 possesses electrical characteristics essentially equivalent to Type 6AL5.



### SYLVANIA ELECTRONIC TUBES

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#### RECEIVING TUBE OPERATIONS EMPORIUM, PA.

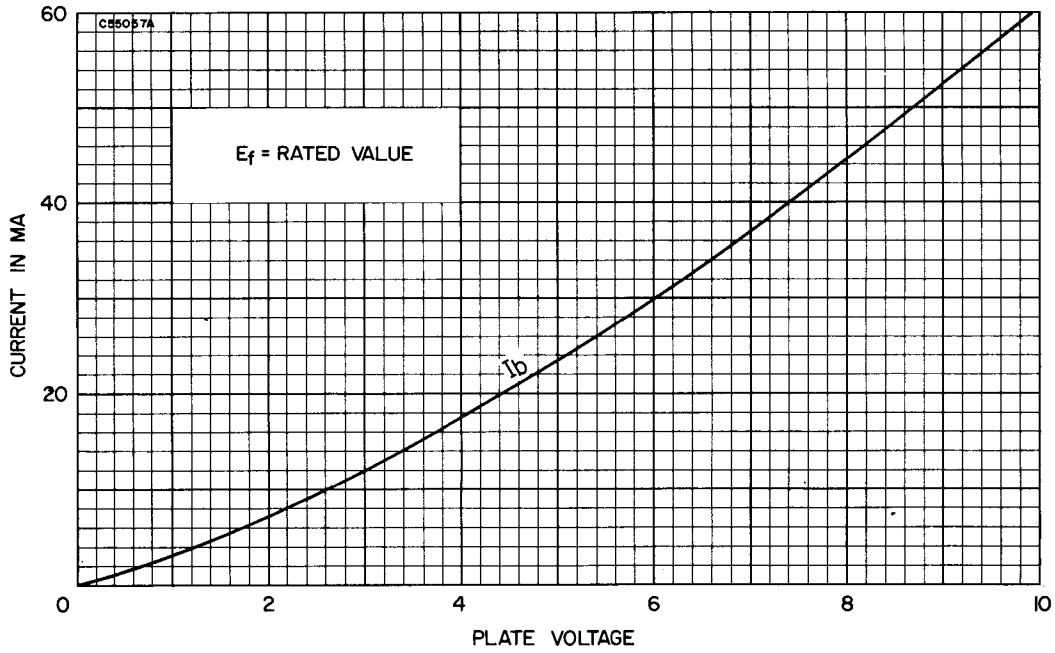
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AVERAGE PLATE CHARACTERISTICS



AVERAGE OPERATION CHARACTERISTICS  
Half-Wave Rectification — Single Diode

