

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 ¹	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 $\mu\mu\text{f}$
Plate to Plate	.026	.068 $\mu\mu\text{f}$
Cathode Input (Each Section)	3.6	3.4 $\mu\mu\text{f}$

RATINGS (Design Center Values)

Peak Inverse Plate Voltage	275 Volts	Max.
Peak Plate Current Per Plate ²	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 $I_b = 60 \text{ Ma}$ 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
$E_f = 7.5 \text{ volts}$ cycled for one minute on and one minute off.	
$E_b = 0 \text{ volts}$, $E_{hk} = 135 \text{ volts}$ with heater positive with respect to cathode.	

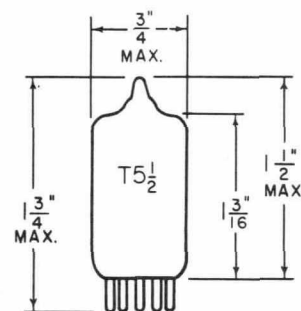
NOTES:

- 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.

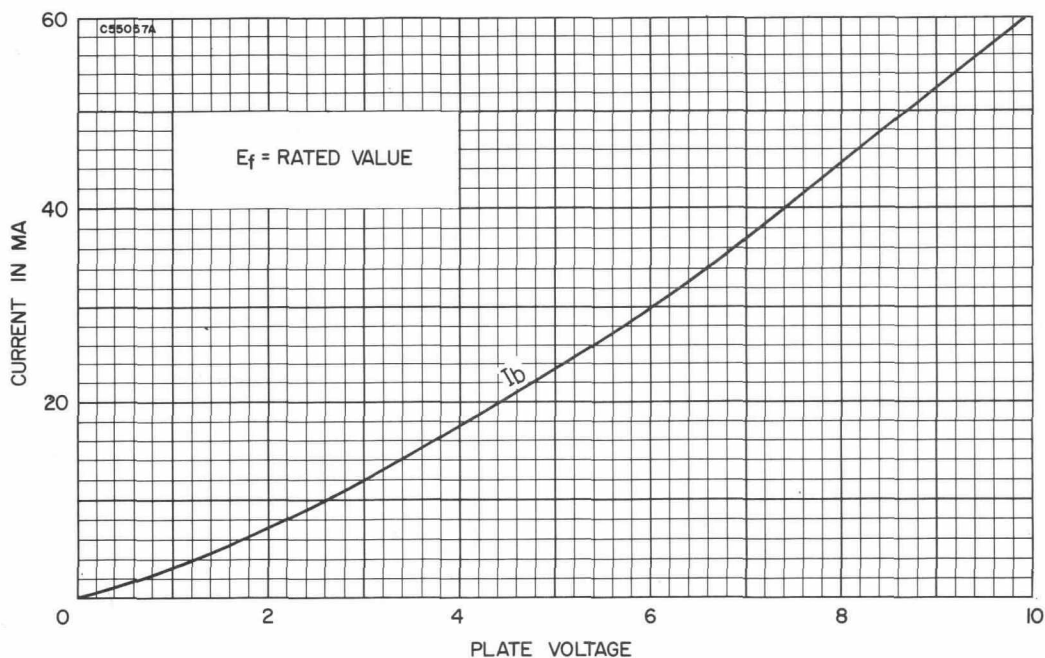
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AVERAGE PLATE CHARACTERISTICS



AVERAGE OPERATION CHARACTERISTICS Half-Wave Rectification — Single Diode

