

### MECHANICAL DATA

Bulb . . . . .	T-5½
Base . . . . .	E7-1, Miniature Button, 7-Pin
Outline . . . . .	5-2
Basing . . . . .	7BA
Cathode . . . . .	Coated Filament
Mounting Position . . . . .	Any

### ELECTRICAL DATA

#### FILAMENT CHARACTERISTICS

	Series	Parallel <sup>1</sup>
Filament Voltage		
Battery Operation . . . . .	. 3.2	1.6 Volts Abs. Max.
AC/DC Line Operation		
(Design Center) . . . . .	. 2.6	1.3 Volts Max.
Filament Voltage (DC) . . . . .	. 2.8	1.4 Volts
Filament Current . . . . .	. 50	100 Ma

#### RATINGS (Design Center Values)

	Series Filament	Parallel <sup>1</sup> Filament
Plate Voltage . . . . .	90	90 Volts Max.
Screen Voltage . . . . .	67.5	67.5 Volts Max.
Cathode Current <sup>2</sup> (Zero Signal) . . . . .	6	12 Ma Max.

### CHARACTERISTICS AND TYPICAL OPERATION

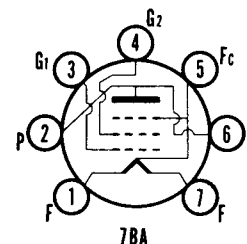
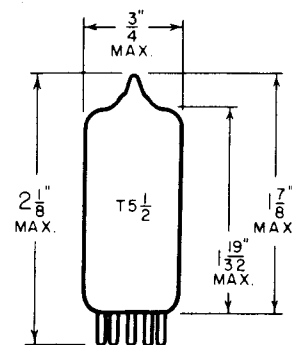
	Series Filament		Parallel <sup>1</sup> Filament	
<b>Class A<sub>1</sub> Amplifier</b>				
Plate Voltage . . . . .	67.5	90	67.5	90 Volts
Screen Voltage . . . . .	67.5	67.5	67.5	67.5 Volts
Negative Grid Voltage . . . . .	-7	-7	-7	-7 Volts
Peak Signal Voltage . . . . .	7	7	7	7 Volts
Zero Signal Plate Current . . . . .	6.0	6.1	7.2	7.4 Ma
Zero Signal Screen Current . . . . .	1.2	1.1	1.5	1.4 Ma
Transconductance . . . . .	1400	1425	1550	1575 μmhos
Load Resistance . . . . .	5000	8000	5000	8000 Ohms
Plate Resistance (approx.) . . . . .	0.1	0.1	0.1	0.1 Megohms
Total Harmonic Distortion . . . . .	12	13	10	10 Percent
Maximum Signal Power Output . . . . .	160	235	180	270 Milliwatts

#### NOTES:

1. For parallel operation, tie pins 1 and 7. Negative end of filament connected to pin No. 5.
2. When series filament connections are used, a shunting resistor should be used across the negative filament section (pins 1 and 5) to limit cathode current to the value specified. If other tubes in a series filament string contribute to the filament current, another resistor should be connected between pins 1 and 7 to carry any excess current over the ratings.

### QUICK REFERENCE DATA

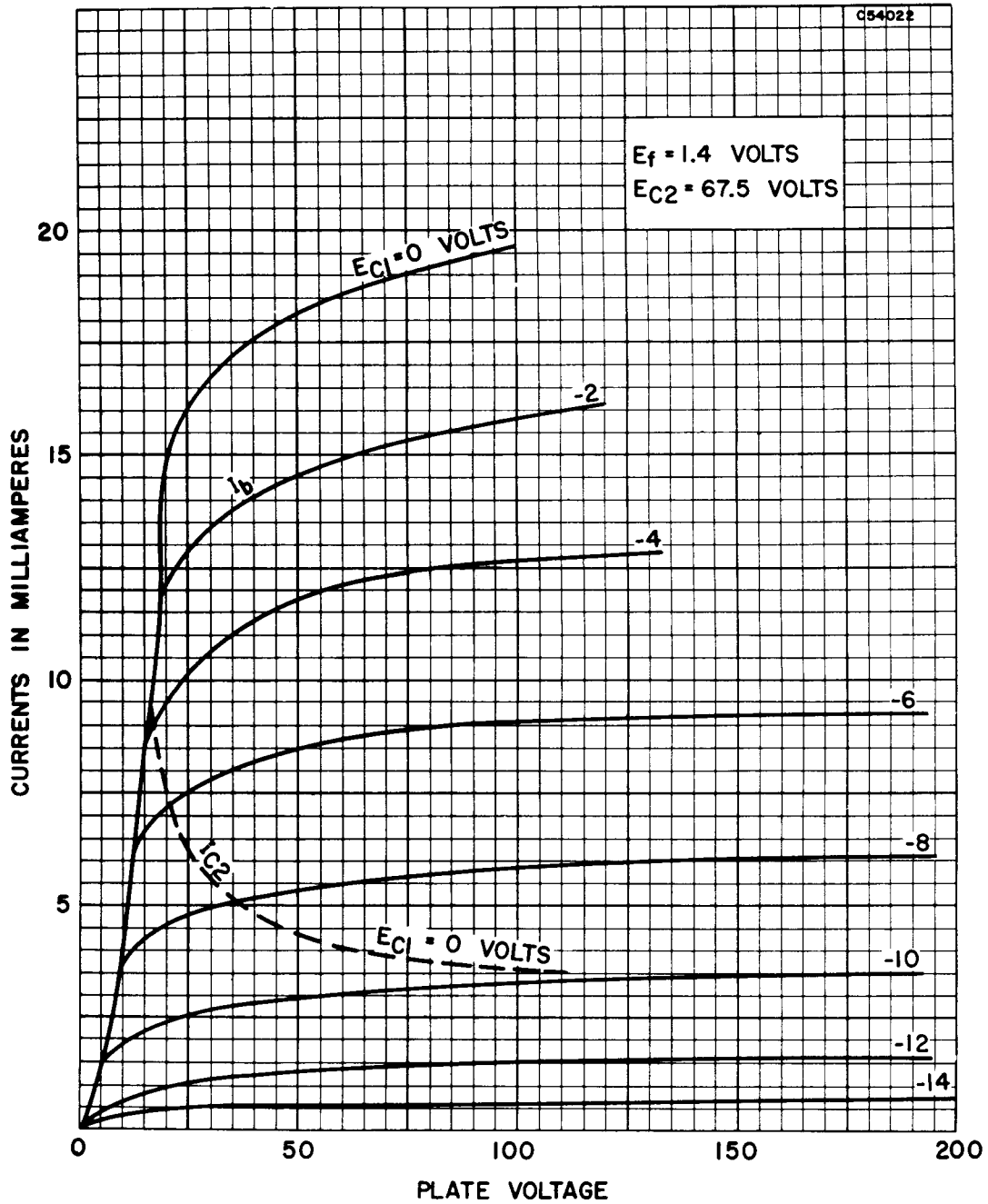
The Sylvania Type 3S4 is a miniature power amplifier pentode designed for service in portable, battery operated equipment. The electrical characteristics of the 3S4 are similar to those of the 1S4. The Type 3S4, however, is designed for operation from either a 1.4 volt or 2.8 volt filament supply.



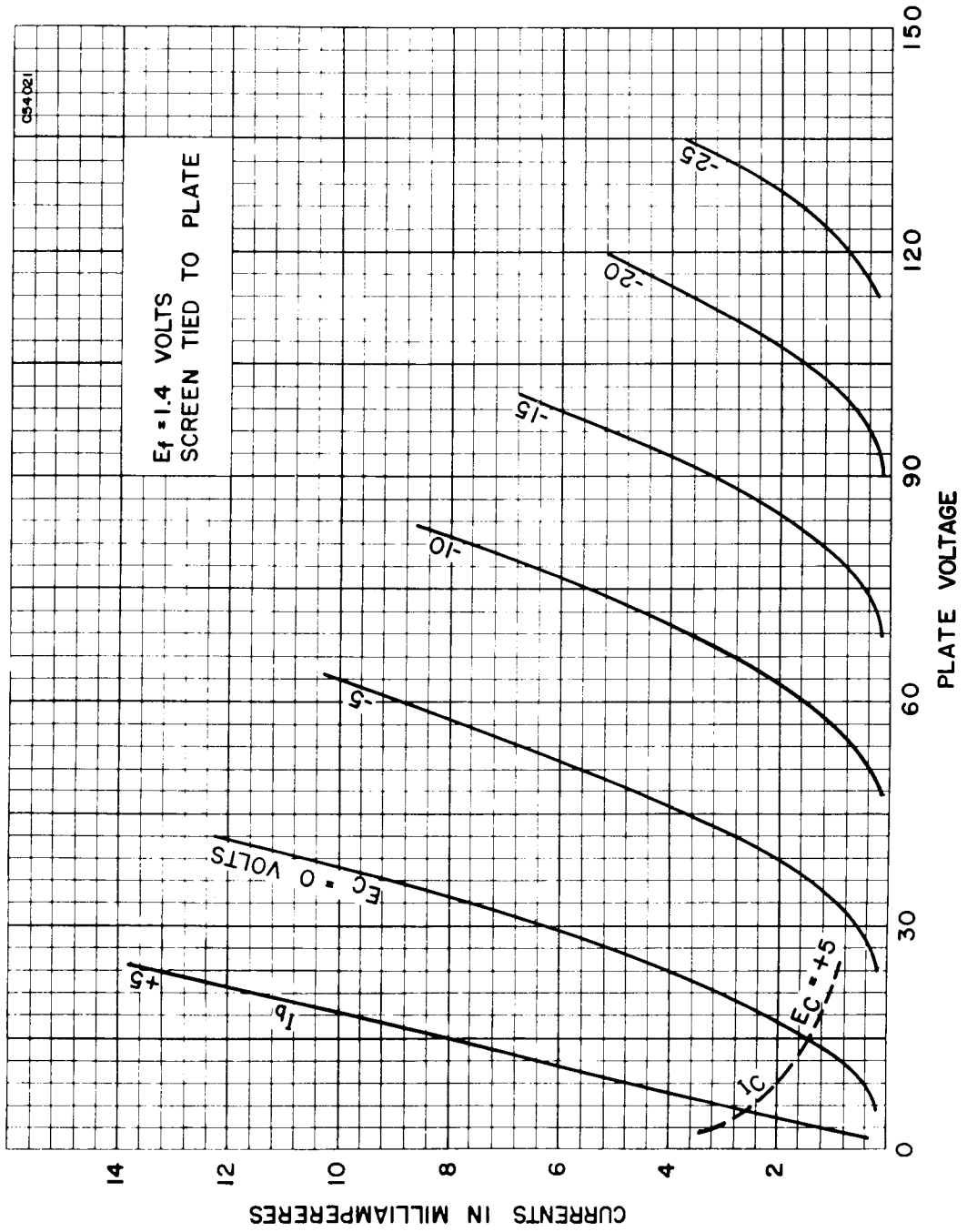
SYLVANIA

3S4

AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



AVERAGE OPERATION CHARACTERISTICS

