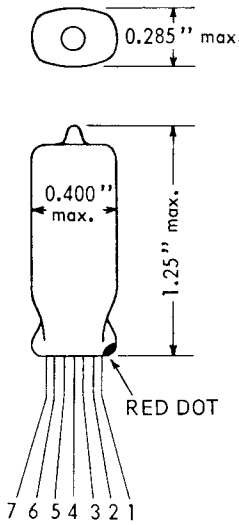
Excellence in Electronics

TYPE CK510AX

The CK510AX is a filament type double space-charge tetrode of subminiature construction. The two tetrodes are mutually isolated to a degree sufficient for operation in cascade at audio frequencies. The tinned flexible leads may be soldered or welded directly to the terminals of circuit components without the use of sockets. Standard inline subminiature sockets may be used by cutting the leads to a suitable length.



MECHANICAL DATA

ENVELOPE: T-2X3 Glass

BASE: None (0.016" tinned flexible leads. Length: 1.50" min. Spacing: 0.048" center-to-center)

TERMINAL CONNECTIONS: *(Red dot is adjacent to Lead 1)*

Lead 1 Grid, Unit 1	Lead 5 Plate, Unit 2
Lead 2 Plate, Unit 1	Lead 6 Grid, Unit 2
Lead 3 Space Charge Grid	Lead 7 Filament, Negative
Lead 4 Filament, Positive	

MOUNTING POSITION: Any

ELECTRICAL DATA

DIRECT INTERELECTRODE CAPACITANCES: ($\mu\mu$fds)●

Control Grid to Plate (each unit)	0.6
Input (each unit)	2.4
Output (each unit)	2.1
Control Grid, Unit 1 to Control Grid, Unit 2	0.7
Plate, Unit 1 to Plate, Unit 2	0.1

RATINGS - ABSOLUTE MAXIMUM VALUES:

Filament Voltage	0.78 volts
Plate Voltage	45 volts

CHARACTERISTICS AND TYPICAL OPERATION - CLASS A1 AMPLIFIER:

Filament Voltage	0.625 volts
Filament Current	50 ma.
Plate Voltage (each unit)	30 volts
Control Grid Voltage (each unit)	0 volts
Space-Charge Grid Resistance ♦	0.2 meg.
Amplification Factor	30
Transconductance (each unit)	50 μmhos
Plate Resistance (each unit)	0.6 meg.
Plate Current (each unit)	50 μa.
Space-Charge Grid Current	135 μa.

CHARACTERISTICS AND TYPICAL OPERATION - RESISTANCE COUPLED AMPLIFIER:

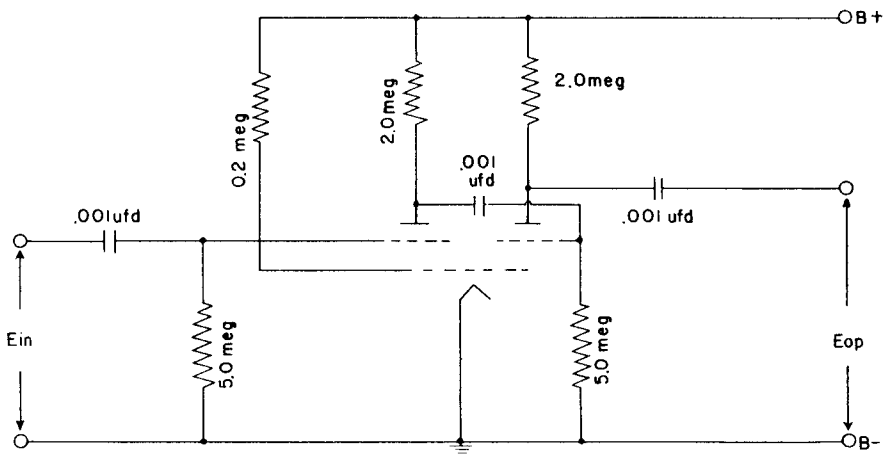
Filament Voltage	0.625 volts
Filament Current	50 ma.
Plate Supply Voltage	30 volts
Control Grid Voltage	0 volts
Grid Resistance	5 meg.
Space-Charge Grid Resistance ♦	0.2 meg.
Load Resistance	2 meg.
Plate Current (each unit)	7.5 μa.
Space-Charge Grid Current	135 μa.
Cascade Voltage Gain (both units)	150

● *With shield.*

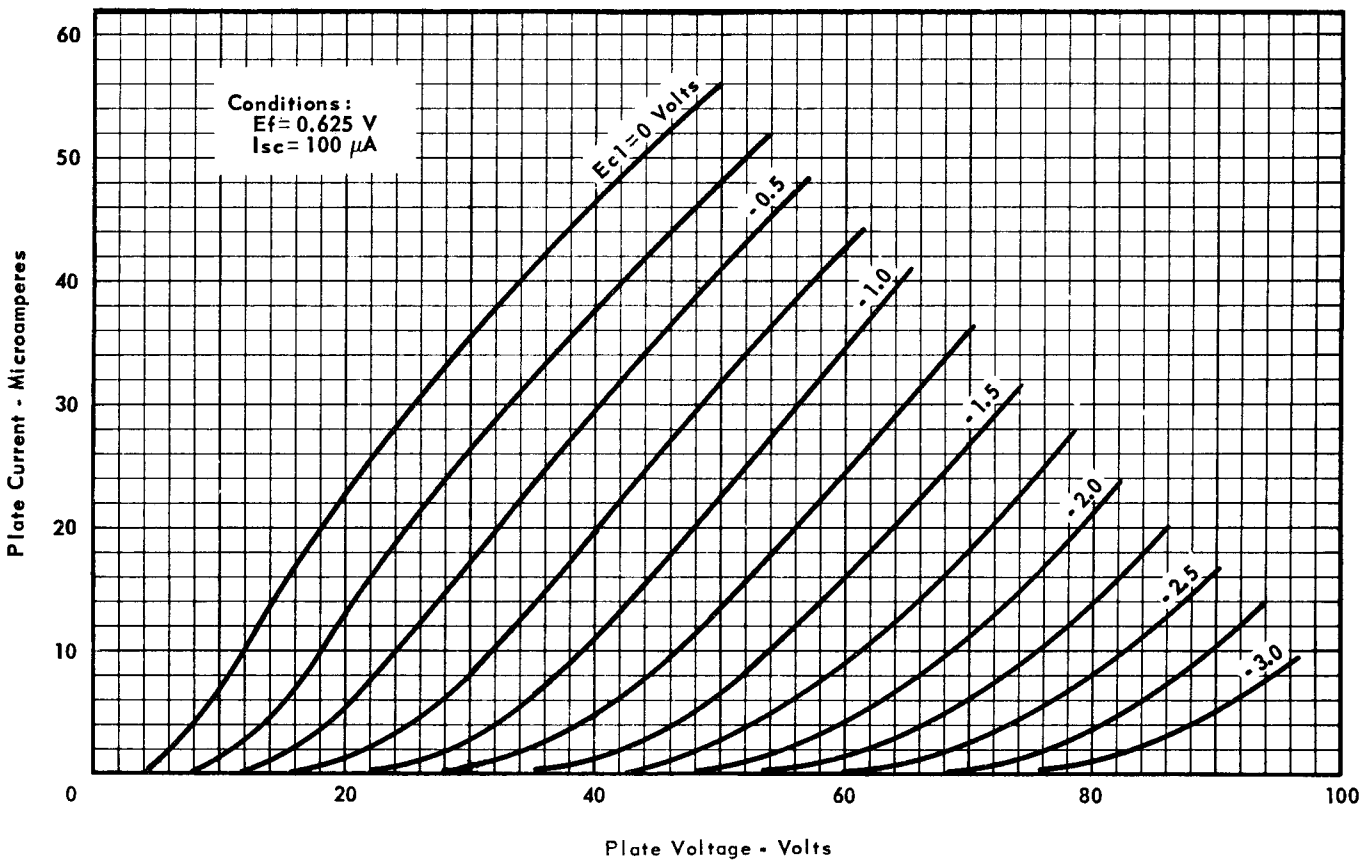
♦ *Returned to positive of plate supply voltage.*

SUBMINIATURE DOUBLE TETRODE

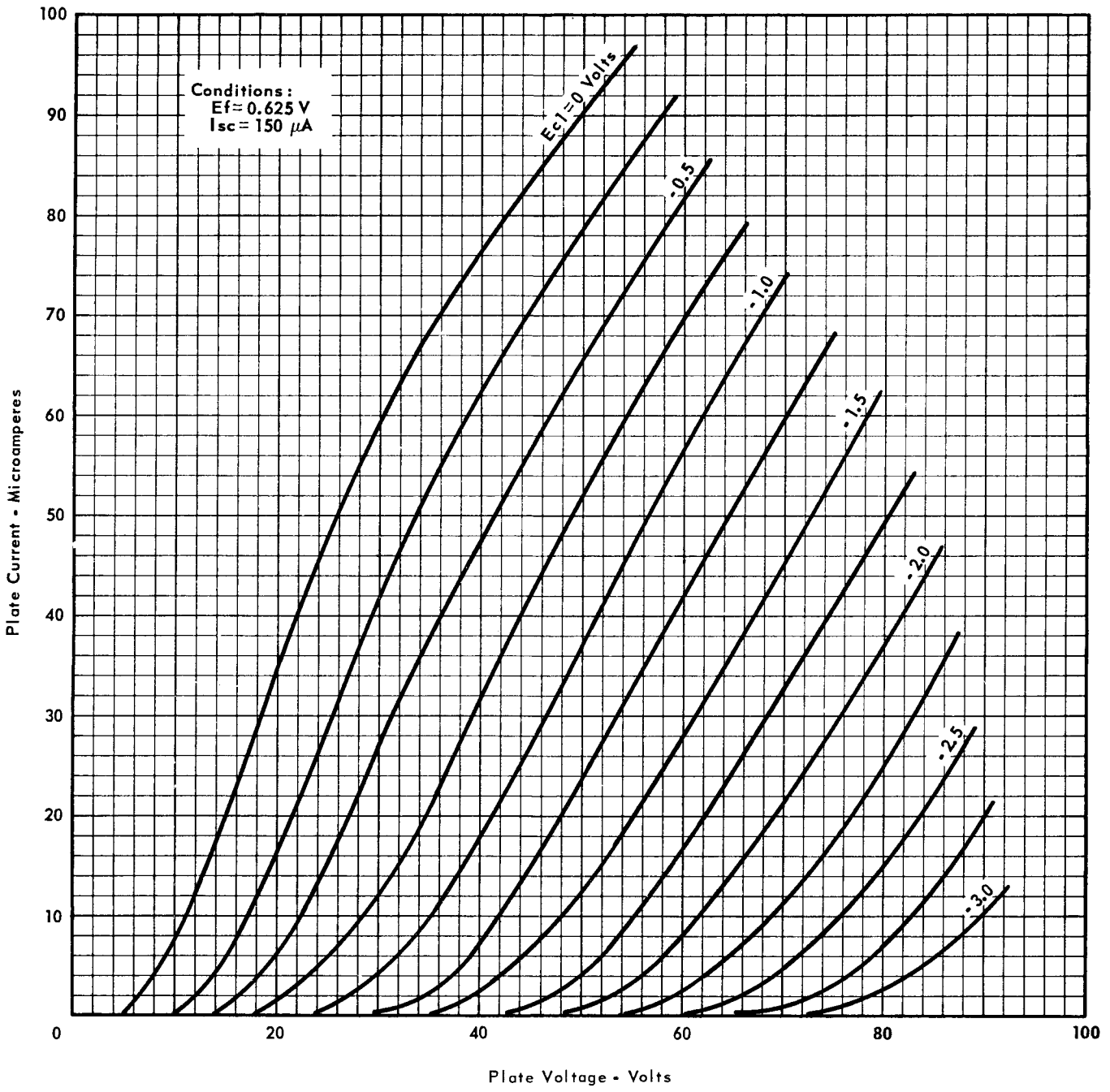
TYPICAL AMPLIFIER CIRCUIT



AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS



AVERAGE PLATE CHARACTERISTICS