TECHNICAL DATA

IW5

Sylvania

TYPE IW5

SHARP CUT-OFF RF PENTODE

RATINGS AND CHARACTERISTICS

Filament Voltage DC	1.25	Volts
Maximum Plate Voltage	100	Volts
Maximum Screen Voltage	100	Volts

Direct Interelectrode Capacitances:	Unshielded	Shielded*
Grid to Plate	.012	.01 μμf. Max.
Input	2.2	2.3 μμf.
Output	3.4	3.5 μμf.

**With 0.405" diameter shield connected to negative filament. Leads numbering 1, 3 and 6 must be grounded to obtain these values.*

PHYSICAL SPECIFICATIONS

Style	T-3
Base	Flexible Leads
Bulb	T-3
Diameter	0.400" Max.
Lead Length	1.25" Min.
Overall Length	1.5" Max.
Mounting Position	Any

BASE PIN CONNECTIONS

Pin 1 - No Connection
Pin 2 - Control Grid
Pin 3 - No Connection
Pin 4 - Negative Filament / Suppressor
Pin 5 - Positive Filament
Pin 6 - No Connection
Pin 7 - Plate
Pin 8 - Screen Grid
RMA Basing 8CP-0-0

from RMA release #467A, Jan. 31, 1947

OPERATING CONDITIONS & CHARACTERISTICS

Filament Voltage DC	1.25	1.25	Volts
Filament Current	.040	.040	Ampere
Plate Voltage	30	67.5	Volts
Screen Voltage	30	67.5	Volts
Grid Voltage	0	0	Volts
Plate Current	0.42	1.85	Ma.
Screen Current	0.16	0.75	Ma.
Plate Resistance (Approx.)	0.7	0.7	Megohm
Mutual Conductance	430	735	μmhos
Control Grid Voltage for Ib = 10 μa. (Approx.)	-2.0	-5.0	Volts

CIRCUIT APPLICATION

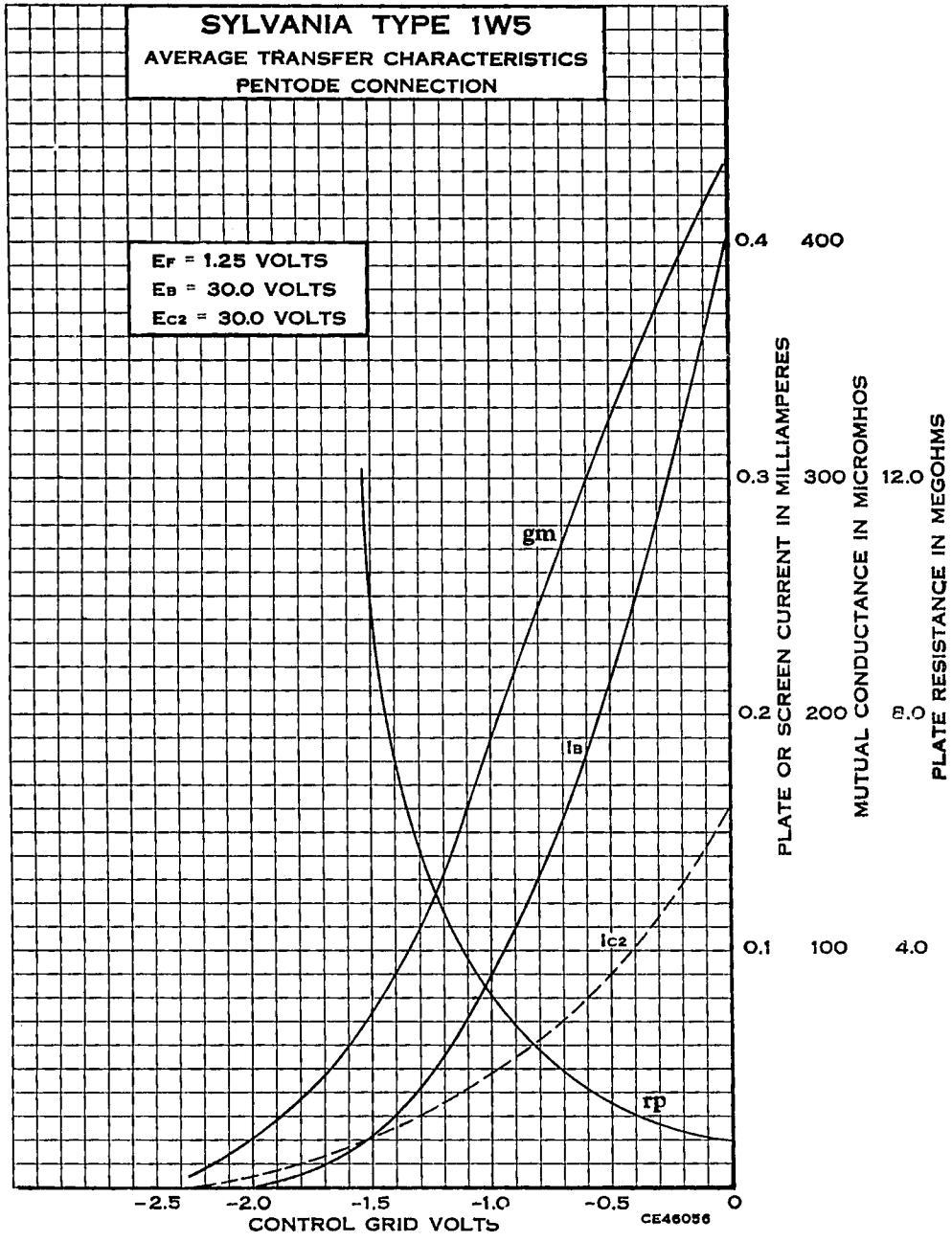
Sylvania Type IW5 is an RF Pentode tube suitable for use in very small radio sets or amplifiers. The other types required for a normal set complement and designed for use with it are Types IC8 (Converter), IQ6 (Diode Pentode) and IV5 (Output Pentode).

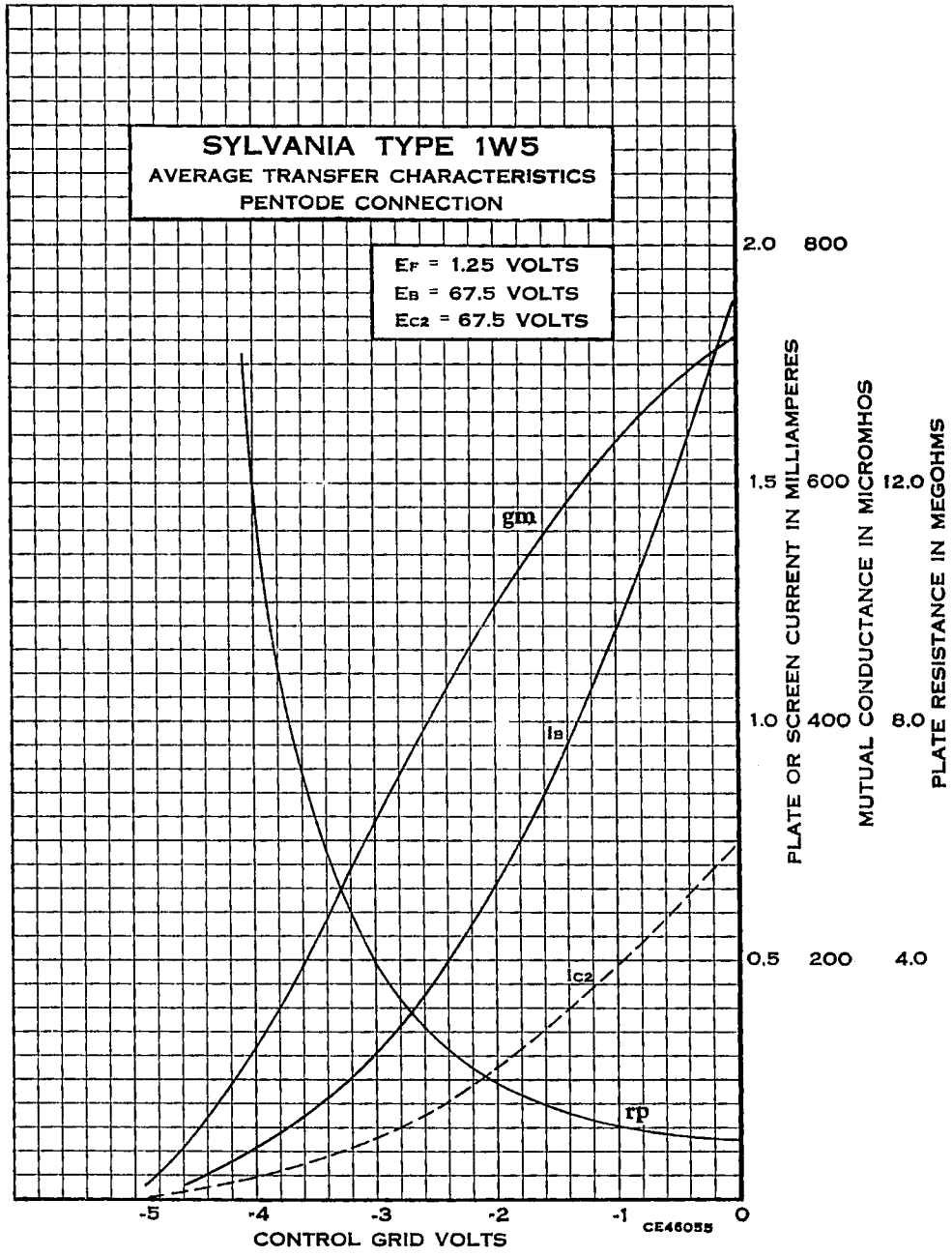
This type corresponds in service and circuit design to Type ILN5 and will operate satisfactorily with standard radio components.

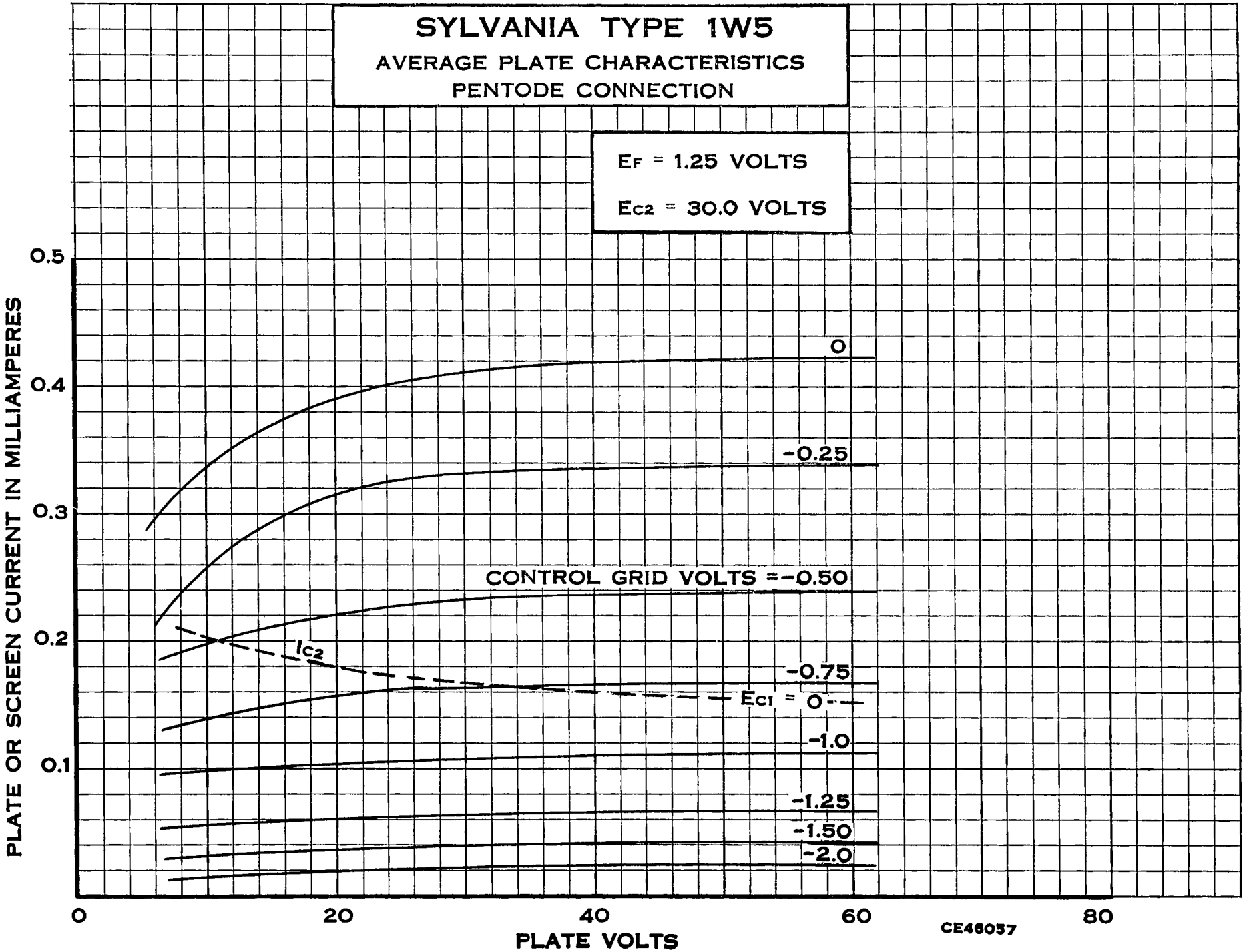
When used on battery supply the filament voltage must never exceed 1.5 volts. For AC-DC power line operation, the design center is 1.2 volts.

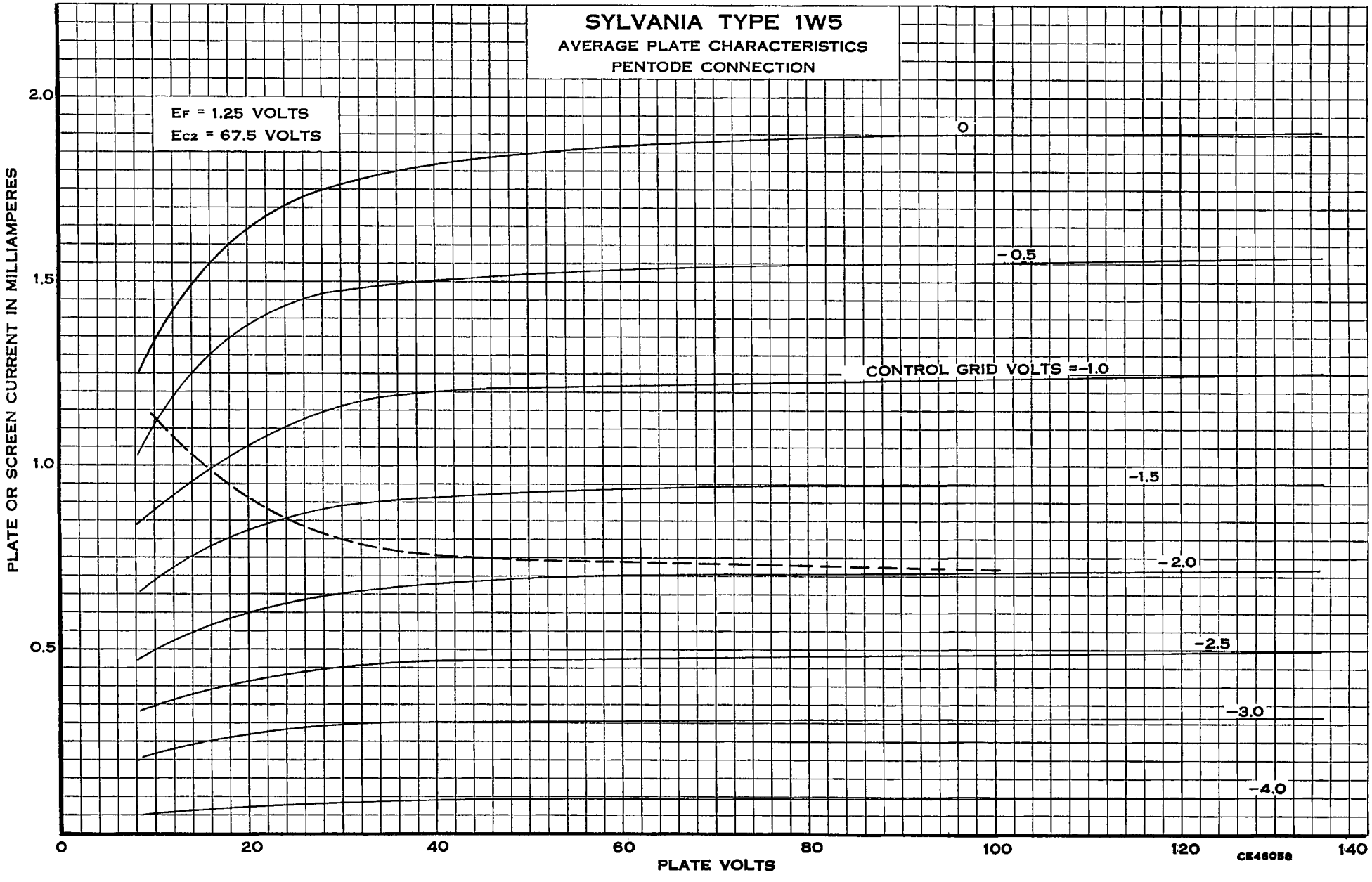
The tinned leads permit direct soldering into the circuit to permit great reduction in size of completed equipment, or may be cut off for use in a socket designed for this purpose. The small size and light weight permit use under severe mechanical conditions and in locations where larger tubes could not be considered.

COMMERCIAL ENGINEERING DEPARTMENT
Sylvania Electric Products Inc., Emporium, Pennsylvania
DEC. 18, 1946 PRINTED IN USA


SYLVANIA TYPE 1W5
AVERAGE TRANSFER CHARACTERISTICS
PENTODE CONNECTION
EF = 1.25 VOLTS
EB = 30.0 VOLTS
Ec2 = 30.0 VOLTS
gm
IB
Ic2
rp
0.4
0.3
0.2
0.1
400
300
200
100
12.0
8.0
4.0
PLATE OR SCREEN CURRENT IN MILLIAMPERES
MUTUAL CONDUCTANCE IN MICROMHOS
PLATE RESISTANCE IN MEGOHMS
-2.5
-2.0
-1.5
-1.0
-0.5
0
CONTROL GRID VOLTS
CE46056


SYLVANIA TYPE 1W5
AVERAGE TRANSFER CHARACTERISTICS
PENTODE CONNECTION
EF = 1.25 VOLTS
EB = 67.5 VOLTS
Ec2 = 67.5 VOLTS
gm
IB
Ic2
rp
2.0
1.5
1.0
0.5
800
600
400
200
12.0
8.0
4.0
PLATE OR SCREEN CURRENT IN MILLIAMPERES
MUTUAL CONDUCTANCE IN MICROMHOS
PLATE RESISTANCE IN MEGOHMS
-5
-4
-3
-2
-1
0
CONTROL GRID VOLTS
CE46055


SYLVANIA TYPE 1W5
AVERAGE PLATE CHARACTERISTICS
PENTODE CONNECTION
EF = 1.25 VOLTS
Ec2 = 30.0 VOLTS
PLATE OR SCREEN CURRENT IN MILLIAMPERES
0.5
0.4
0.3
0.2
0.1
0
20
40
60
80
PLATE VOLTS
CE46057
0
-0.25
CONTROL GRID VOLTS =-0.50
Ic2
-0.75
Ec1 = 0
-1.0
-1.25
-1.50
-2.0


SYLVANIA TYPE 1W5
AVERAGE PLATE CHARACTERISTICS
PENTODE CONNECTION
EF = 1.25 VOLTS
EC2 = 67.5 VOLTS
CONTROL GRID VOLTS =-1.0
0
-0.5
-1.5
-2.0
-2.5
-3.0
-4.0
PLATE OR SCREEN CURRENT IN MILLIAMPERES
2.0
1.5
1.0
0.5
0
20
40
60
80
100
120
140
PLATE VOLTS
CE46058