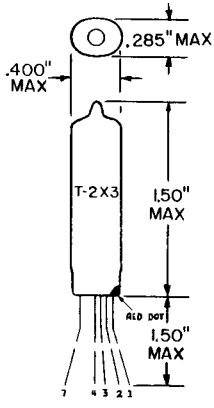
TUNG-SOL



GLASS BULB
DOT IS ADJACENT TO LEAD 1
OUTLINE DRAWING JEDEC 2-5
IN-LINE LEADS

ELECTROMETER PENTODE

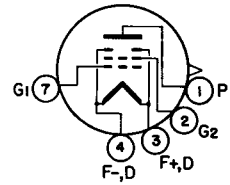
SUBMINIATURE TYPE

FOR

SINGLE STAGE AND MULTI-STAGE

CIRCUIT APPLICATIONS

ANY MOUNTING POSITION



BOTTOM VIEW
LEADS 5 & 6 ARE OMITTED
LEADS 0.048" CENTER-TO-CENTER

THE 5886 IS A FILAMENTARY TYPE PENTODE IN THE 5 PIN SUBMINIATURE CONSTRUCTION. OPERATED AS A TRIODE, THE TUBE HAS AN UNUSUALLY HIGH RATIO OF TRANSCONDUCTANCE TO CONTROL GRID CURRENT FOR SINGLE STAGE CIRCUITS. AS A PENTODE, THE AMPLIFICATION FACTOR IS HIGH ENOUGH TO AFFORD CONSIDERABLE VOLTAGE GAIN IN THE ELECTROMETER STAGE OF A MULTI-STAGE CIRCUIT.

DIRECT INTERELECTRODE CAPACITANCES

WITHOUT EXTERNAL SHIELD

GRID 1 TO ALL	2.2	pf
GRID 1 TO GRID 2 AND PLATE	2.0	pf

FILAMENT CHARACTERISTICS AND RATINGS

ABSOLUTE MAXIMUM VALUES - SEE EIA STANDARD RS-239

AVERAGE CHARACTERISTICS	1.25	VOLTS	10	MA.
LIMITS OF APPLIED VOLTAGE			1.25±0.25	VOLTS

FOR USE WITH BATTERIES HAVING AN INITIAL VOLTAGE OF 1.55 VOLTS MAX.

MAXIMUM RATINGS

ABSOLUTE MAXIMUM VALUES - SEE EIA STANDARD RS-239

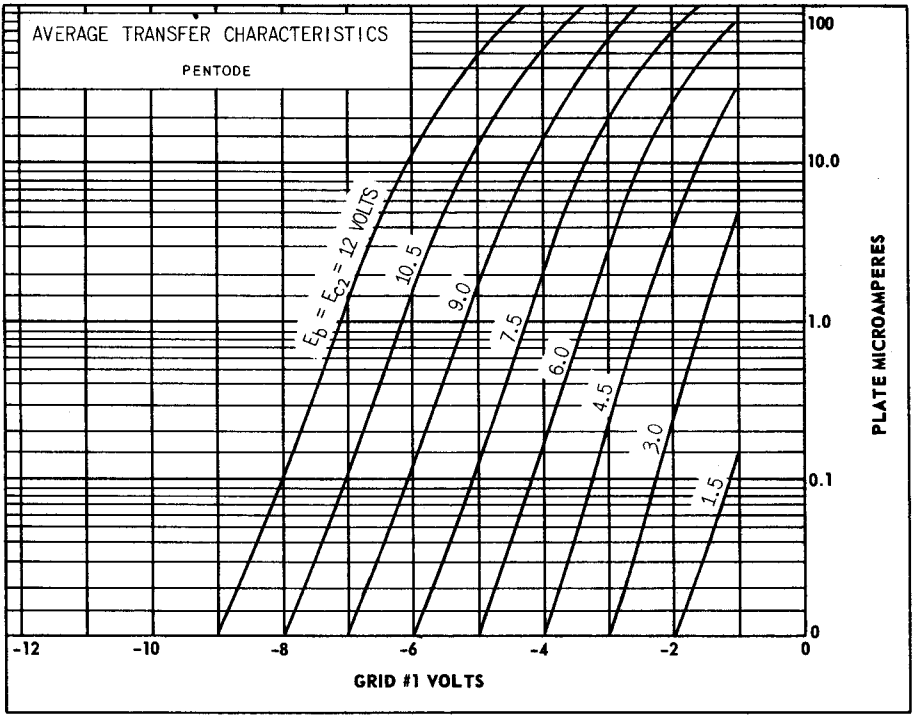
PLATE VOLTAGE	22.5	VOLTS
GRID 2 VOLTAGE	22.5	VOLTS
TOTAL CATHODE CURRENT	300	μA

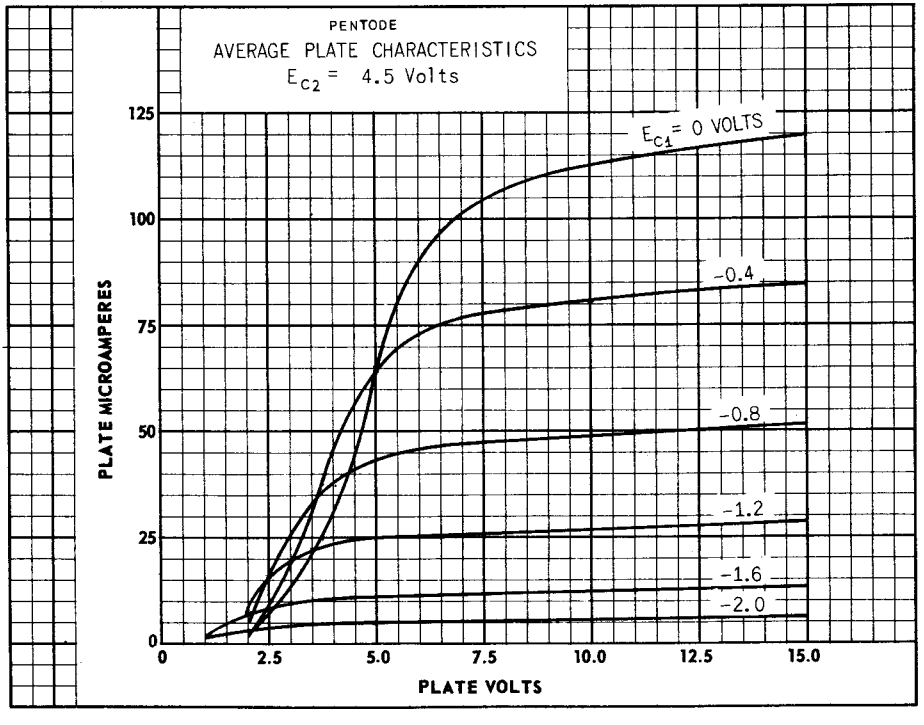
TYPICAL OPERATING CHARACTERISTICS

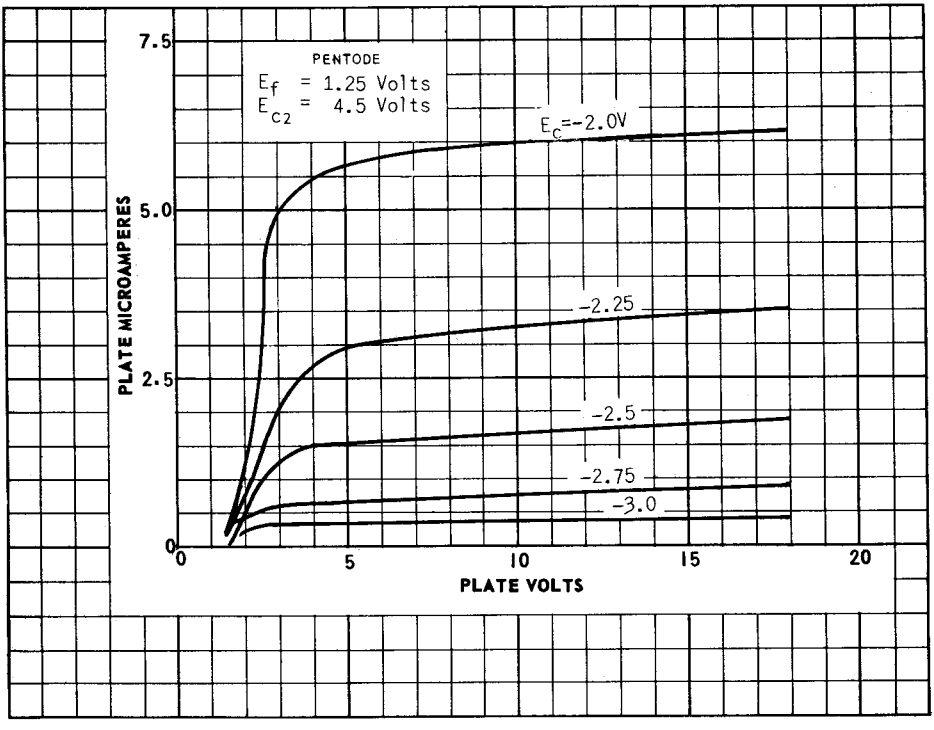
	TRIODE	PENTODE	
PLATE VOLTAGE	10.5	8.5	VOLTS
GRID 2 VOLTAGE	-----	4.5	VOLTS
GRID 1 VOLTAGE	-3	-2	VOLTS
PLATE CURRENT	200	6	μA
GRID 2 CURRENT	-----	3.6	μA
AMPLIFICATION FACTOR	1.8	-----	
TRANSCONDUCTANCE	175	14	μMHOS
PLATE RESISTANCE	-----	8	MΩ
MAX. GRID 1 CURRENT	2.5×10^{-13}	-----	AMP.
NOMINAL GRID 1 CURRENT		3×10^{-15}	AMP.

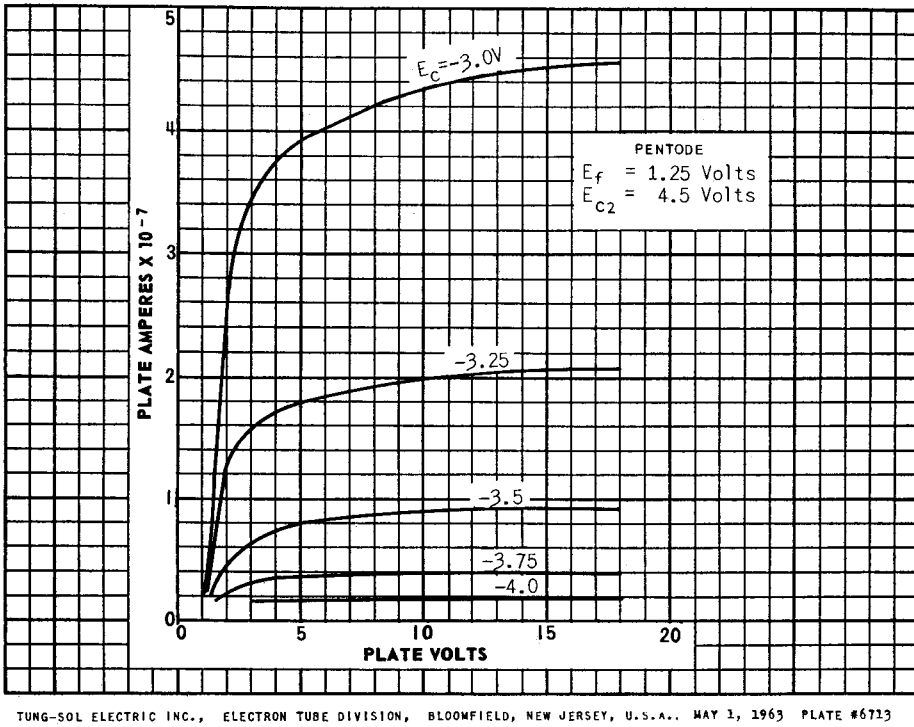
B GRID 2 CONNECTED TO PLATE

PRINTED IN U.S.A.

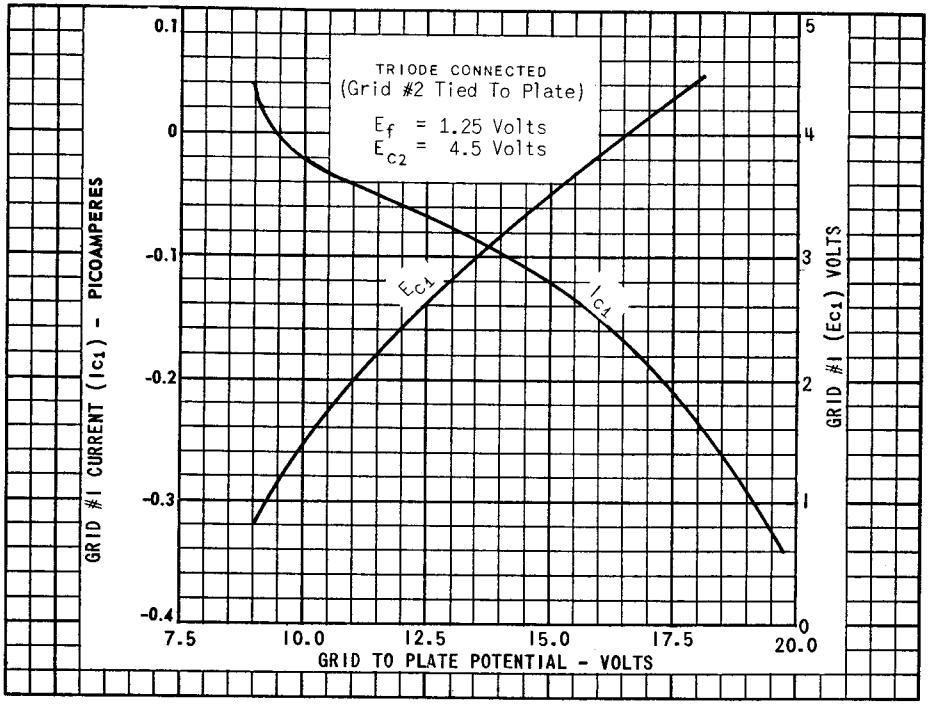

AVERAGE TRANSFER CHARACTERISTICS
PENTODE
$E_b = E_{c2}$ = 12 VOLTS
10.5
9.0
7.5
6.0
4.5
3.0
1.5
100
10.0
1.0
0.1
0
PLATE MICROAMPERES
-12
-10
-8
-6
-4
-2
0
GRID #1 VOLTS

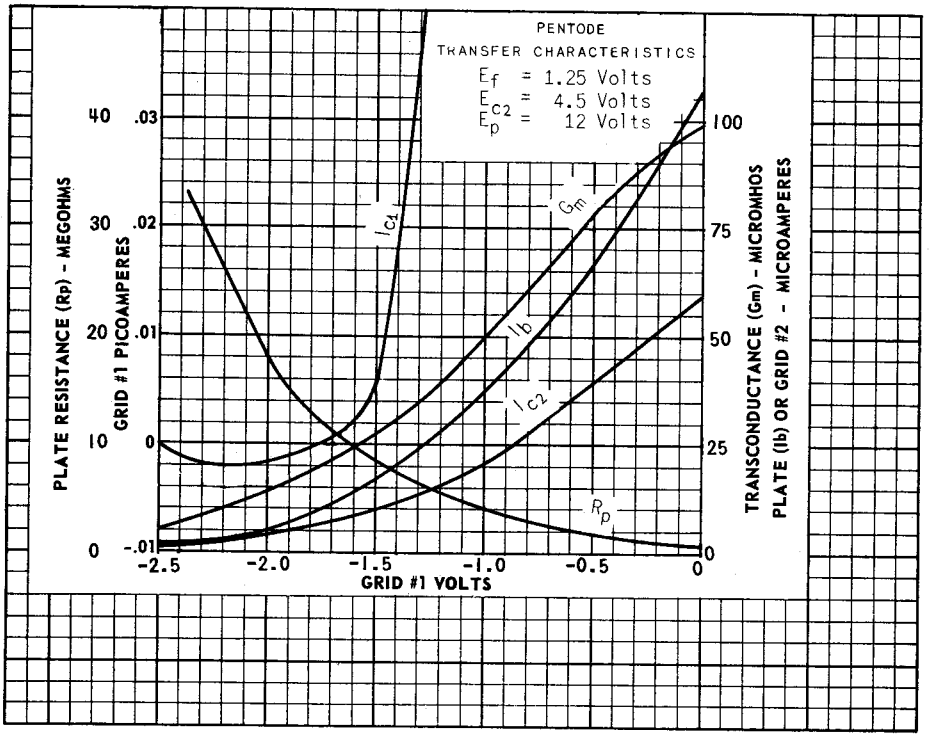

PENTODE
AVERAGE PLATE CHARACTERISTICS
E_{c2} = 4.5 Volts
E_{c1} = 0 VOLTS
-0.4
-0.8
-1.2
-1.6
-2.0
125
100
75
50
25
0
PLATE MICROAMPERES
0
2.5
5.0
7.5
10.0
12.5
15.0
PLATE VOLTS

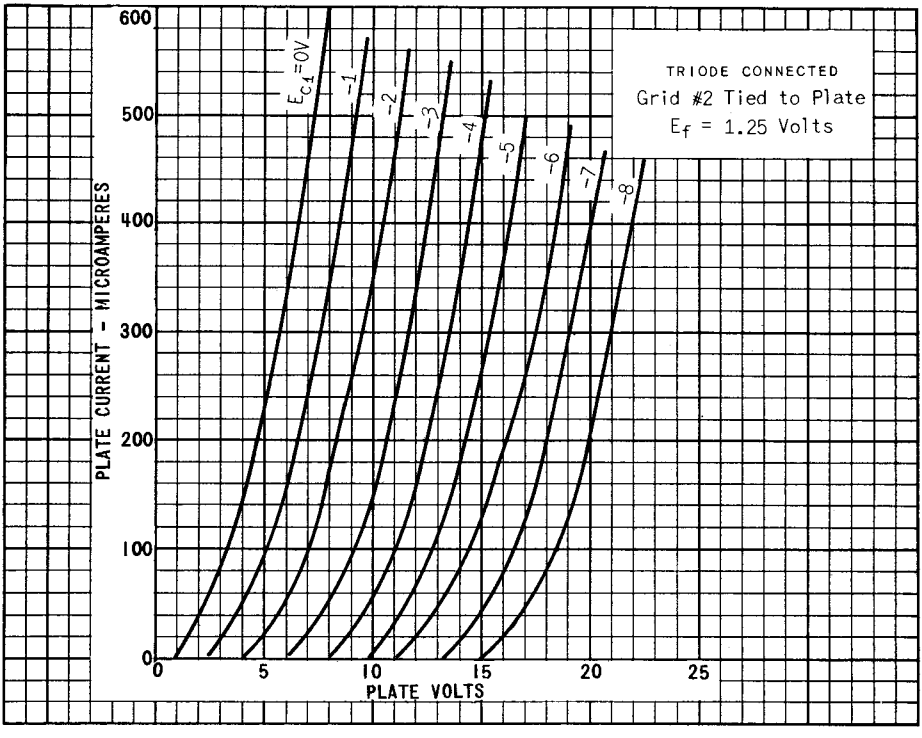


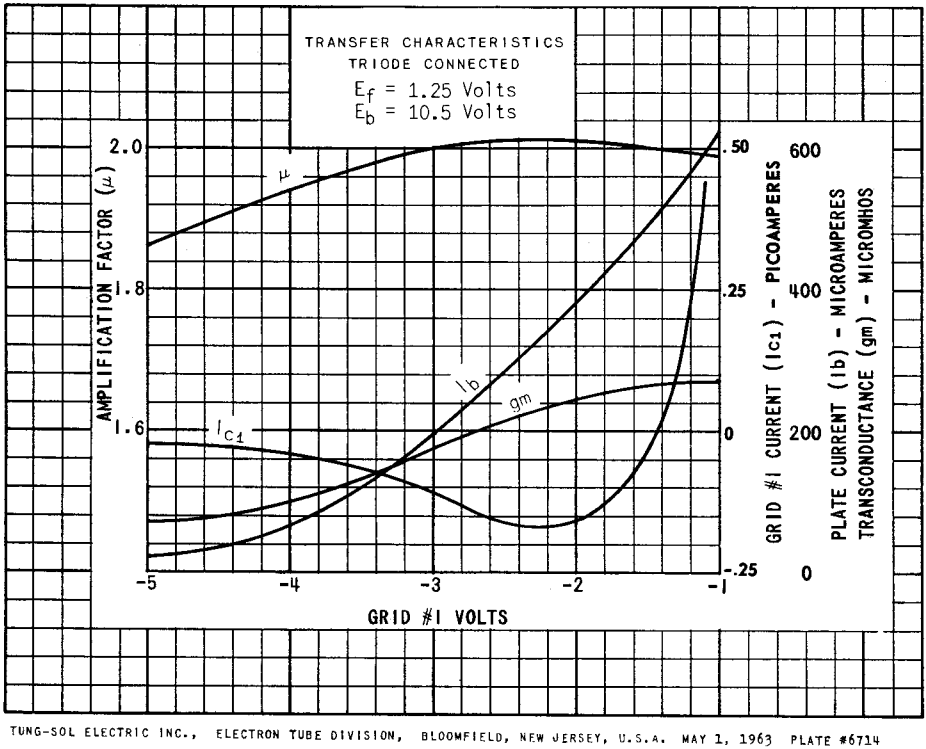


PRINTED IN U.S.A.


TRIODE CONNECTED
(Grid #2 Tied To Plate)
E_f = 1.25 Volts
E_{c2} = 4.5 Volts
E_{c1}
I_{c1}
GRID #1 CURRENT (I_{c1}) - PICOAMPERES
GRID #1 (E_{c1}) VOLTS
GRID TO PLATE POTENTIAL - VOLTS
0.1
0
-0.1
-0.2
-0.3
-0.4
5
4
3
2
1
0
7.5
10.0
12.5
15.0
17.5
20.0

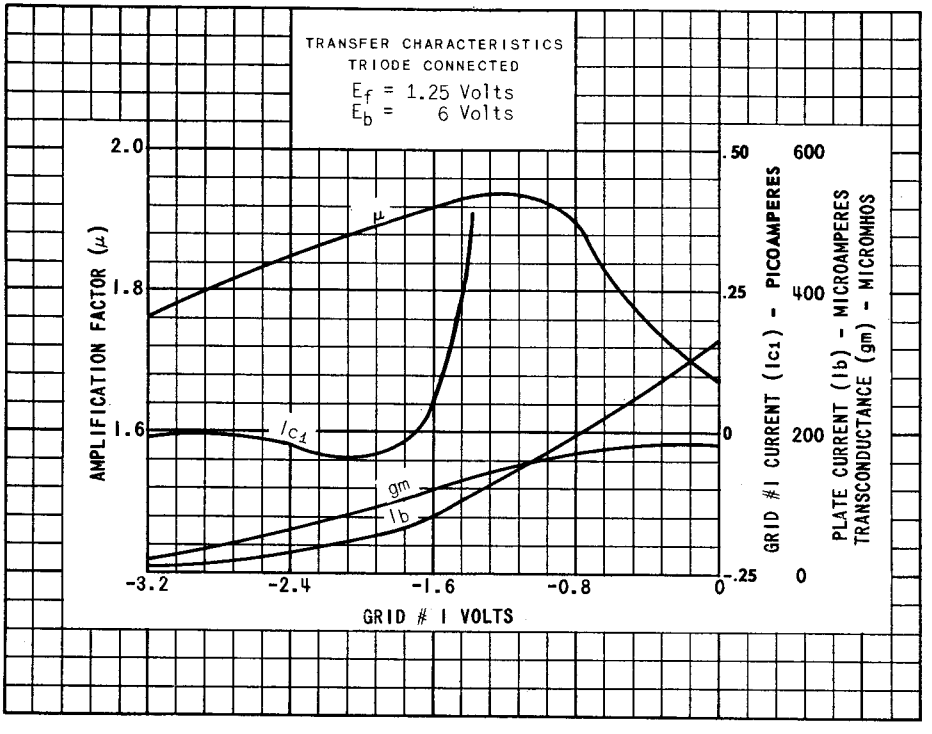

PENTODE
TRANSFER CHARACTERISTICS
E_f = 1.25 Volts
E_{c2} = 4.5 Volts
E_p = 12 Volts
I_{c1}
G_m
I_b
I_{c2}
R_p
PLATE RESISTANCE (Rp) - MEGOHMS
GRID #1 PICOAMPERES
TRANSCONDUCTANCE (Gm) - MICROMHOS
PLATE (Ib) OR GRID #2 - MICROAMPERES
GRID #1 VOLTS
40
30
20
10
0
.03
.02
.01
0
-.01
100
75
50
25
0
-2.5
-2.0
-1.5
-1.0
-0.5
0





PRINTED IN U. S. A.

5886


TRANSFER CHARACTERISTICS
TRIODE CONNECTED
E_f = 1.25 Volts
E_b = 6 Volts
AMPLIFICATION FACTOR (μ)
2.0
1.8
1.6
μ
I_{c_1}
gm
Ib
-3.2
-2.4
-1.6
-0.8
0
GRID # 1 VOLTS
.50
.25
0
-.25
GRID #1 CURRENT (I_{c_1}) - PICOAMPERES
600
400
200
0
PLATE CURRENT (Ib) - MICROAMPERES
TRANSCONDUCTANCE (gm) - MICROMHOS