

SPECIAL QUALITY OUTPUT PENTODE

EI30L

Special quality high slope output pentode intended for general industrial applications.

This data should be read in conjunction with GENERAL NOTES - SPECIAL QUALITY VALVES which precede this section of the handbook, and the index numbers are used to indicate where reference should be made to a specific note.

HEATER

Suitable for parallel operation, a.c. or d.c.

V_h^1	6.3	V
I_h	1.7	A

The maximum variation of heater voltage at $I_h = 1.7A$ is $\pm 5\%$.

CAPACITANCES²

c_{in}	35	pF
c_{out}	17	pF
c_{a-g1}	< 2.0	pF

CHARACTERISTICS³

V_a	250	V
V_{g2}	150	V
V_{g1}	-15.5	V
I_a	100	mA
I_{g2}	4.0	mA
g_m	27.5	mA/V
μ_{g1-g2}	6.5	
r_a	10	k Ω

OPERATING CONDITIONS AS CLASS 'A' AMPLIFIER

V_a	250	V
V_{g2}	150	V
V_{g1}	-15.5	V
R_a	2.7	k Ω
$V_{in(r.m.s.)}$	3.82	V
$I_{a(o)}$	100	mA
$I_{g2(o)}$	4.0	mA
P_{out}	11.5	W
D_{tot}	10	%

OPERATING CONDITIONS AS CLASS 'AB' AMPLIFIER - PUSH-PULL

V_a	300	V
V_{g2}	150	V
V_{g1}	-17	V
R_{a-a}	1.6	k Ω
$V_{in(r.m.s.)}$	9.0	V
$I_{a(o)}$	2×80	mA
$I_{g2(o)}$	2×2.5	mA
P_{out}	60	W
D_{tot}	5	%
$I_{a(max.sig.)}$	2×182	mA
$I_{g2(max.sig.)}$	2×22	mA

RATINGS (ABSOLUTE MAXIMUM SYSTEM)⁴

$V_{a(b)} \text{ max.}$	2.0	kV
$V_a \text{ max.}$	900	V
$V_{g2} \text{ max.}$	250	V
$-v_{a(pk)} \text{ max.}$	2.0	kV
$+v_{a(pk)} \text{ max.}$	8.0	kV
$p_a \text{ max.}$	27.5	W
$p_{a+g2} \text{ max.}$	27.5	W
$V_{g2(b)} \text{ max.}$	550	V

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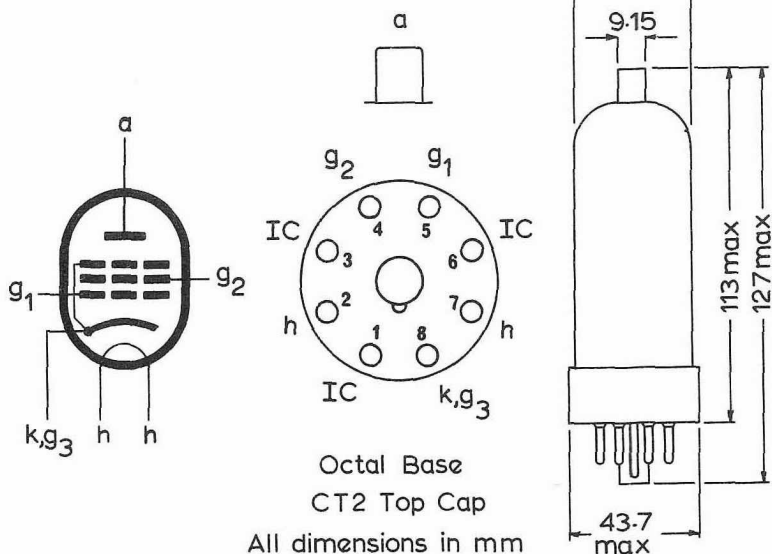
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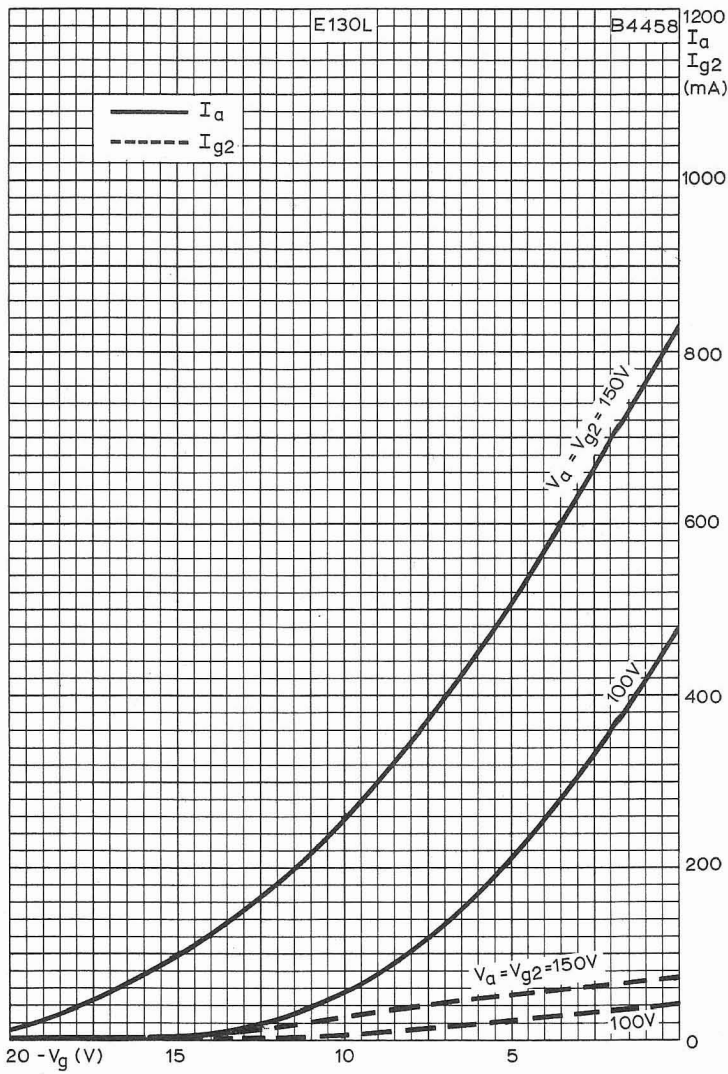
P_{g2} max.	5.0	W
$-V_{g1}$ max.	150	V
$+V_{g1}$ max.	15	V
$-p_{g1}$ max.	0.1	W
R_{g1} max.	0.5	MΩ
I_k max.	300	mA
$*i_{k(pk)}$ max.	1.5	A
$**i_{k(pk)}$ max.	4.6	A
V_{h-k} max. (cathode negative)	100	V
V_{h-k} max. (cathode positive)	200	V

*Max. duration 4ms, I_k max. = 150mA.

**Max. duration 1.5μs, I_k max. = 14mA.

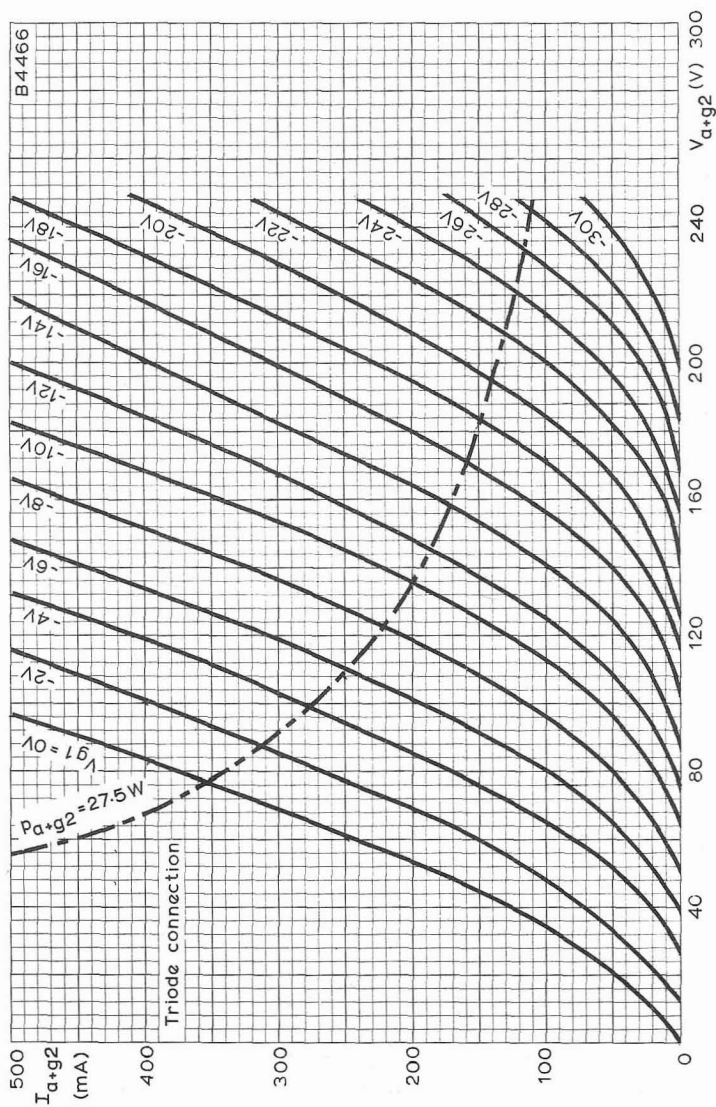
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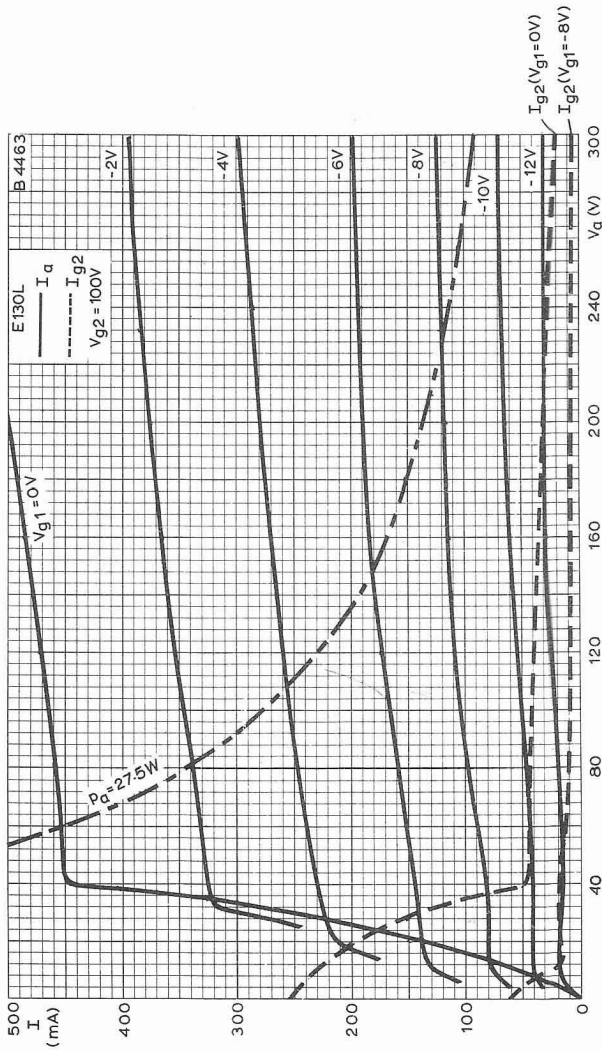


ANODE AND SCREEN CURRENTS PLOTTED AGAINST
CONTROL-GRID VOLTAGE WITH ANODE AND
SCREEN VOLTAGES AS PARAMETERS



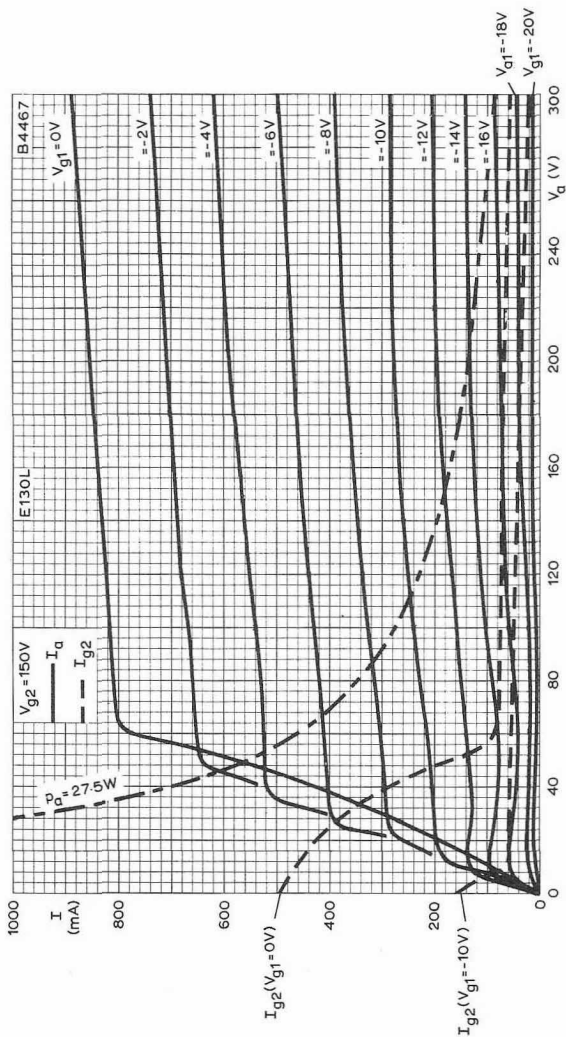


ANODE CURRENT PLOTTED AGAINST ANODE VOLTAGE
WITH CONTROL-GRID VOLTAGE AS PARAMETER



ANODE AND SCREEN CURRENTS PLOTTED AGAINST ANODE
VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER

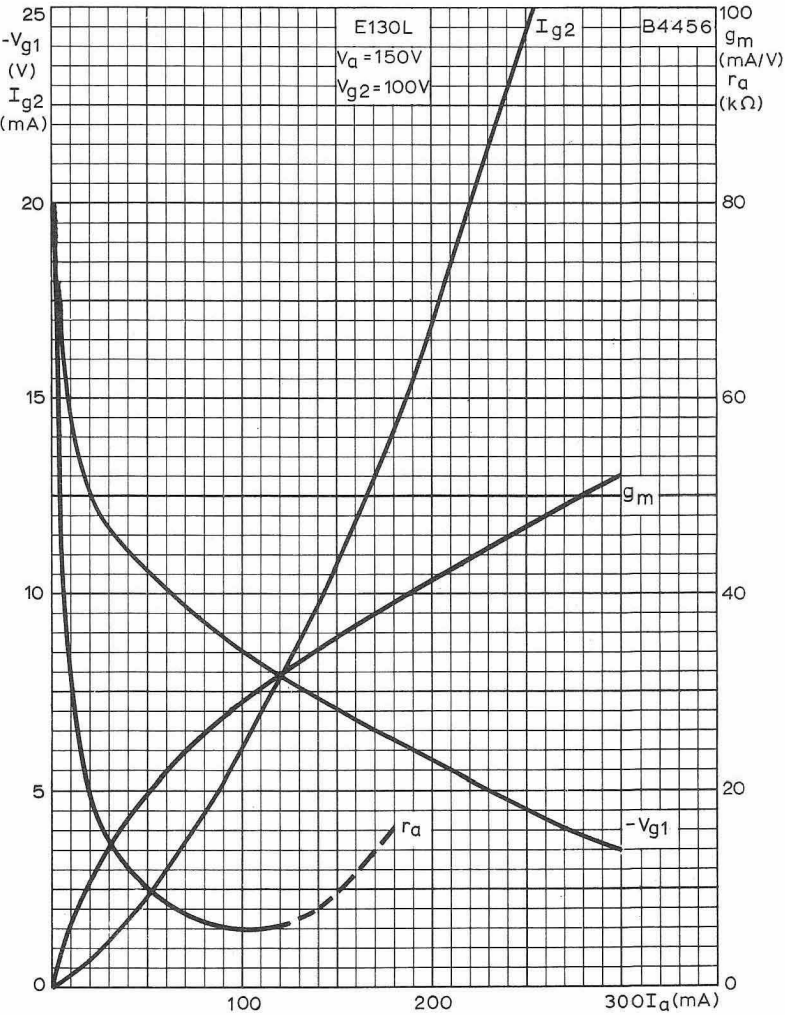
$V_{g2} = 100V$



ANODE AND SCREEN CURRENTS PLOTTED AGAINST ANODE VOLTAGE WITH CONTROL-GRID VOLTAGE AS PARAMETER
 $V_{g2} = 150V$

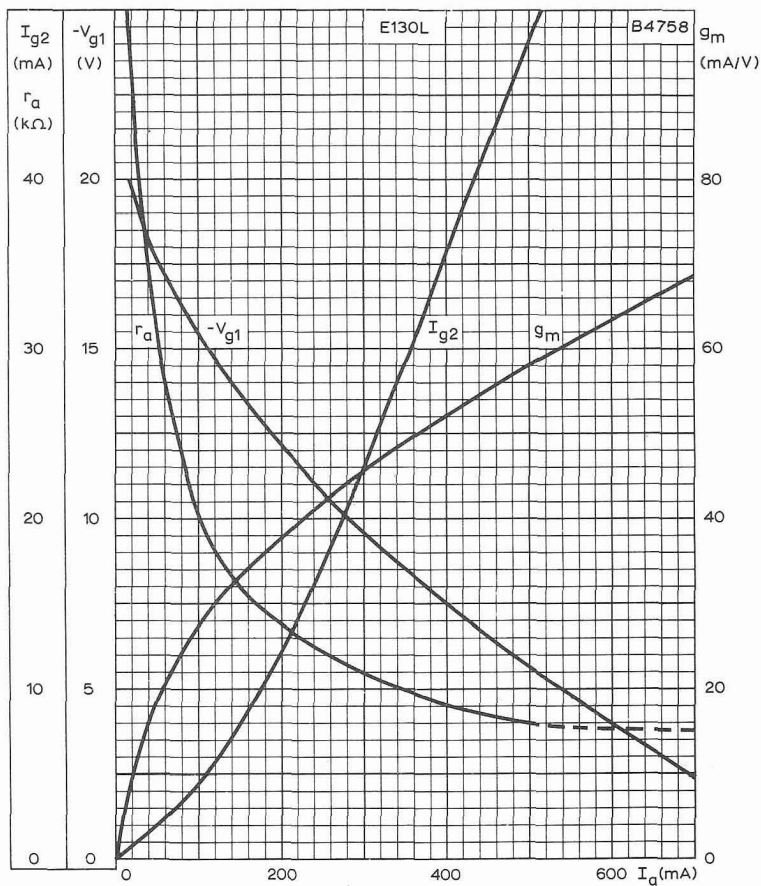
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SCREEN CURRENT, CONTROL-GRID VOLTAGE,
MUTUAL CONDUCTANCE AND ANODE IMPEDANCE
PLOTTED AGAINST ANODE CURRENT
 $V_a = 150V, V_{g2} = 100V$





SCREEN CURRENT, CONTROL-GRID VOLTAGE
MUTUAL CONDUCTANCE AND ANODE IMPEDANCE
PLOTTED AGAINST ANODE CURRENT

$$V_a = 250V, V_{g2} = 150V$$