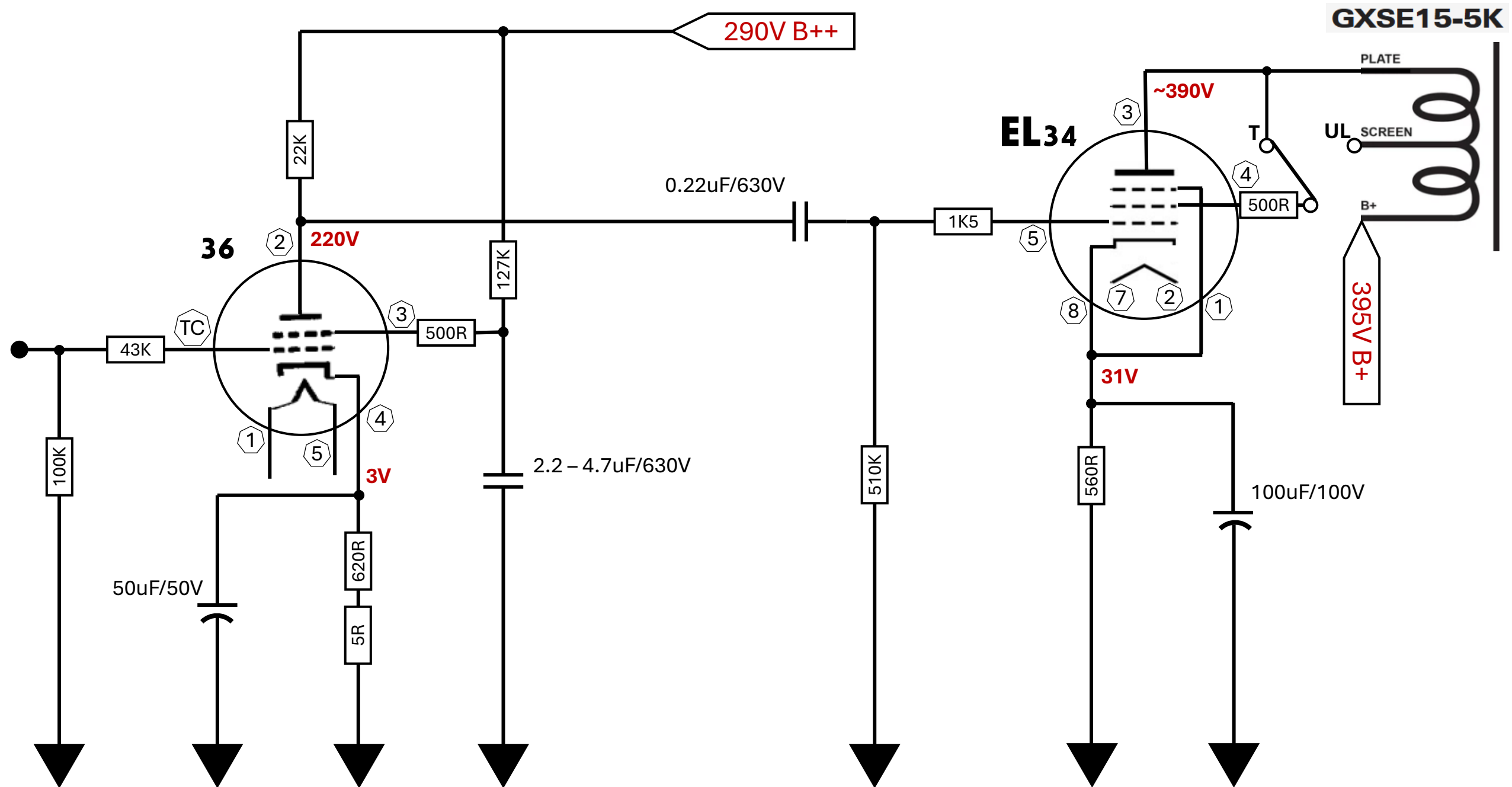
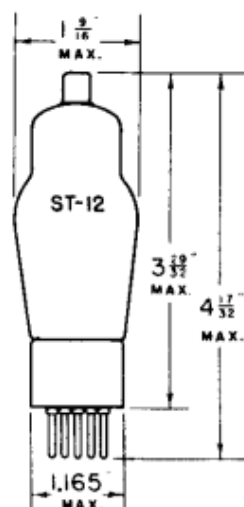


3634 Amplifier

36 Pre and EL34 Power



TUNG-SOL**TETRODE AMPLIFIER**

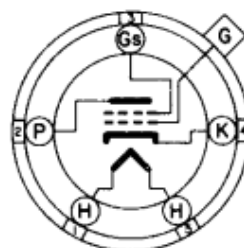
UNIPOTENTIAL CATHODE

HEATER

6.3 VOLTS 0.3 AMPERE
AC OR DC

GLASS BULB

SMALL 5 PIN BASE



5E

BOTTOM VIEW

THE TUNG-SOL 36 IS DESIGNED FOR USE AS AN RF AMPLIFIER OR DETECTOR.

OPERATING CONDITIONS AND CHARACTERISTICS

CLASS A AMPLIFIER

PLATE VOLTAGE	100	135	180	250 ^{MAX.}	VOLTS
SCREEN VOLTAGE	55	67.5	90 ^{MAX.}	90 ^{MAX.}	VOLTS
CONTROL GRID VOLTAGE	-1.5	-1.5	-3	-3	VOLTS
PLATE CURRENT	1.8	2.8	3.1	3.2	MA.
SCREEN CURRENT	-	-	-	1.7 ^{MAX.}	MA.
PLATE RESISTANCE	0.55	0.475	0.50	0.55	MEGOHM
TRANSCONDUCTANCE	850	1000	1050	1080	μMHOS
AMPLIFICATION FACTOR	470	475	525	595	

AVERAGE PLATE CHARACTERISTICS

TYPE 36
 $E_f = 6.3$ VOLTS
SCREEN VOLTS=90

CONTROL-GRID VOLTS $E_{c1}=0$

Plate Current 3.2mA
Screen Current 1.6MA
Zener Current 4.1mA
Cathode Current 4.8mA
Cathode Voltage 3V
 $R_K = 625R$ Ideal

$100 \div 0.0016 =$

62,500

$0.16 \times 4 =$

0.64 W

RGS = 62,000R

RSGS = 500R

No Zener

Gain = 25V/V

$75 \div 3 =$

25

$E_{c1} = -3$

-4

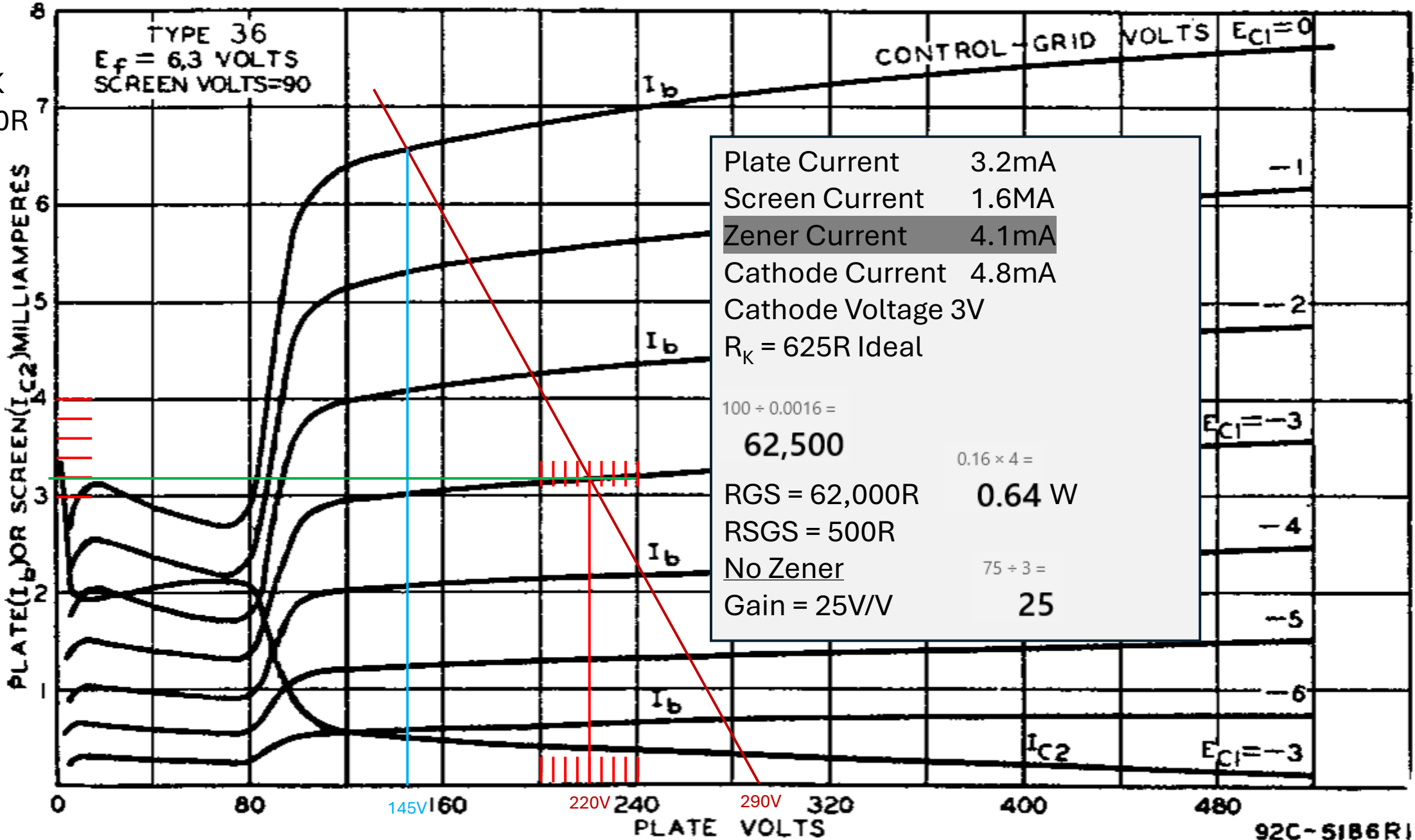
-5

-6

$E_{c1} = -3$

I_{c2}

92C-5186R1



$R_L = 22K$
 $R_K = 620R$

3.2mA

Select a Tube: Check full list of [available tubes](#)

Operating mode:

☒ Ultralinear
☐ Pentode
☐ Triode

PP/SE:

☐ PP ☒ SE

V+ (V):

Grid Bias Voltage (V):

Quiescent Operating Point:

Iq(mA):

Vq(V):

Output Power (W):
at max g1:13.39
at g1=0:13.39
at class A/A2:7.84
at headroom:12.96

Load (Ohm):

☐ Resistive
☒ Reactive

Next stage AC Impedance (Ohm):

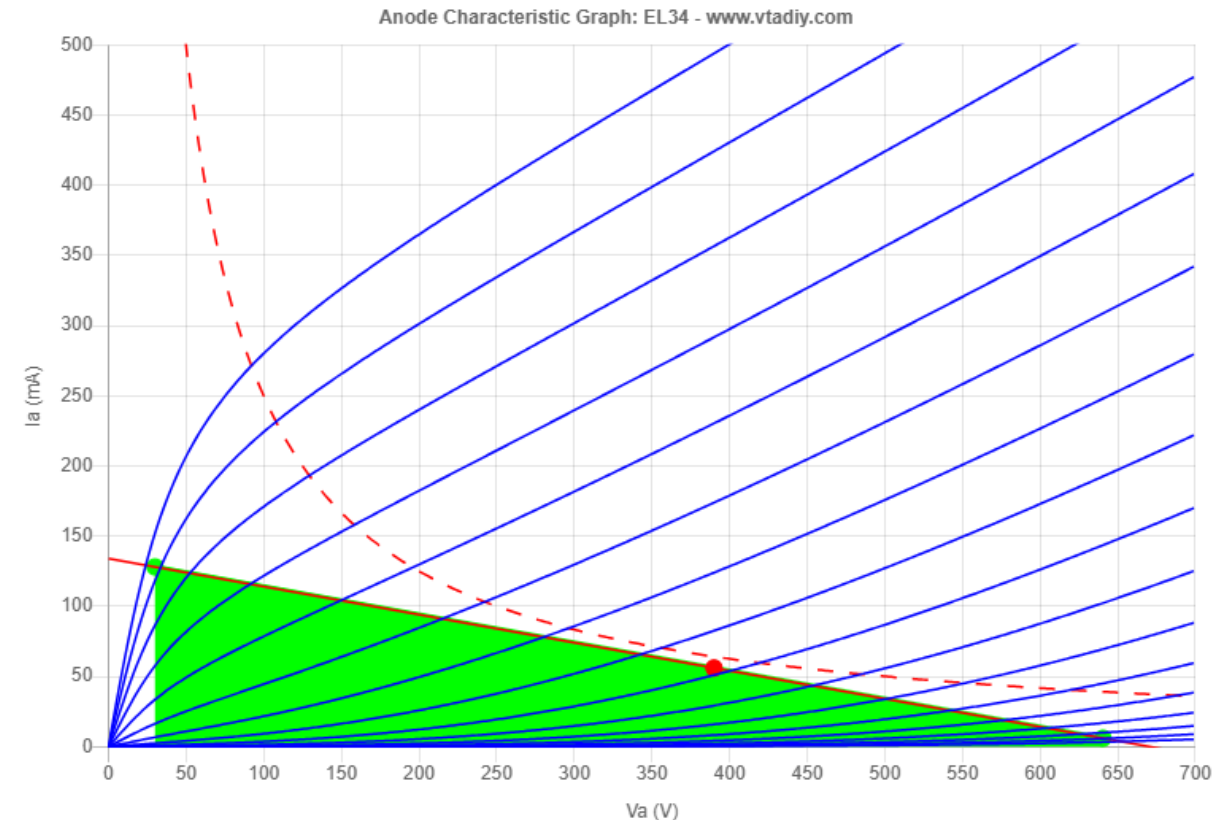
HD%:

2nd:8.22 3rd:8.39 4th:3.10
THD:12.15

Screen Voltage (V):

UltraLinear tap (%):

Out. headroom (+/-V):



$$31.26 \div 0.056 =$$

558.21428571428571428571428571429

$$31.26 \times 0.056 =$$

1.75056



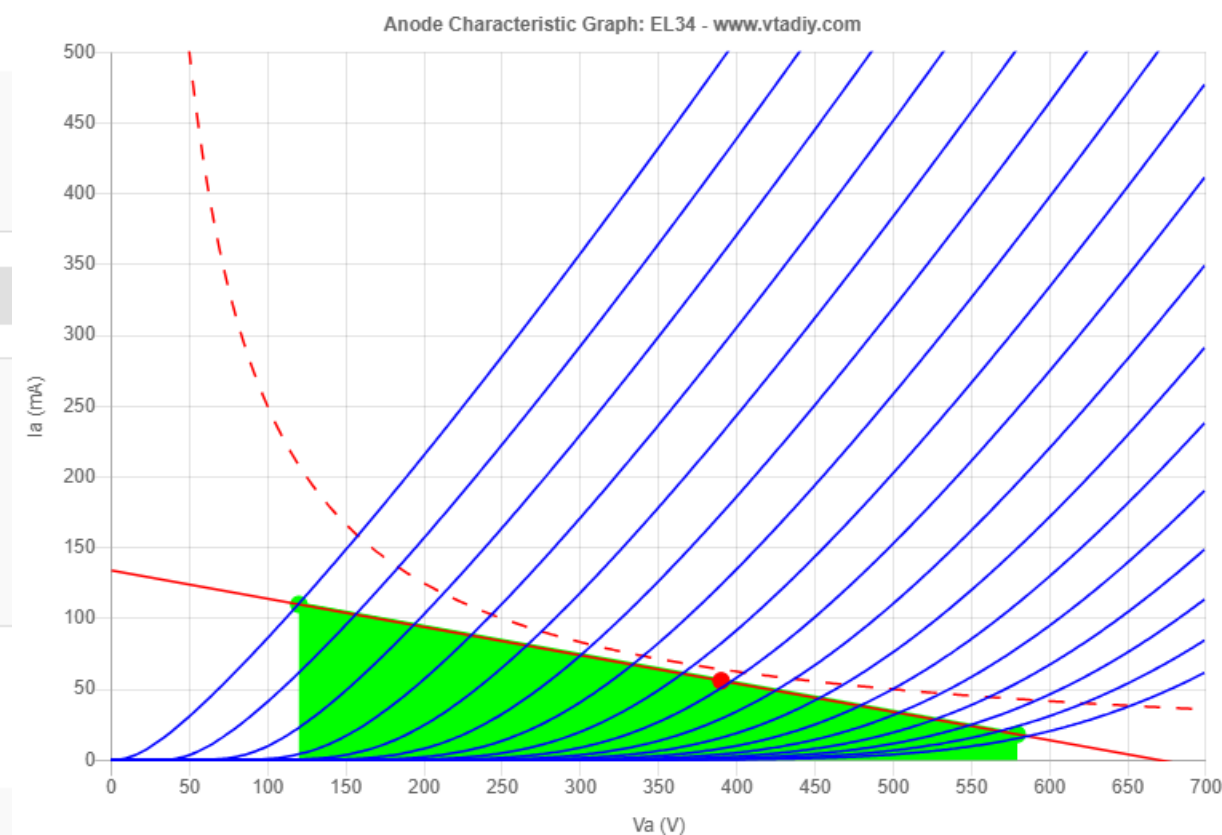
RS010560R0FE73
RES 560 OHM 10W 1% WW AXIAL
Vishay Dale

$$1.75056 \times 4 =$$

7.00224

Select a Tube: EL34 Print this Graph! Check full list of [available tubes](#)

Operating mode:	<input type="radio"/> Ultralinear <input type="radio"/> Pentode <input checked="" type="radio"/> Triode	PP/SE:	<input type="radio"/> PP <input checked="" type="radio"/> SE
V+ (V):	<input type="text" value="390"/>	Grid Bias Voltage (V):	<input type="text" value="-31.26"/>
Quiescent Operating Point:	Iq(mA): <input type="text" value="56"/> Vq(V): <input type="text" value="390.00"/>	Output Power (W):	at max g1:7.31 at g1=0:7.31 at class A/A2:7.84 at headroom:7.29
Load (Ohm): <input type="radio"/> Resistive <input checked="" type="radio"/> Reactive	<input type="text" value="5000"/>		
Next stage AC Impedance (Ohm):	<input type="text"/>	HD%:	2nd:8.74 3rd:0.63 4th:0.11 THD:8.76
Screen Voltage (V):	<input type="text" value="250"/>		
UltraLinear tap (%):	<input type="text" value="40"/>		
Out. headroom (+/-V):	<input type="text" value="270"/>		



$$31.26 \div 0.056 = 558.21428571428571428571428571429$$

$$31.26 \times 0.056 = 1.75056$$

$$1.75056 \times 4 = 7.00224$$



RS010560R0FE73
RES 560 OHM 10W 1% WW AXIAL
Vishay Dale

OUTPUT PENTODE

Output pentode rated for 25W anode dissipation,
intended for use in a.c. mains operated equipment.

EL34

DESIGN CENTRE RATINGS

$V_{a(b)}$ max.	2.0	kV
V_a max.	800	V
p_a max.	25	W
$V_{g2(b)}$ max.	800	V
V_{g2} max.	500	V
p_{g2} max.	8.0	W
I_k max.	150	mA
R_{g1-k} max.	500	k Ω
V_{h-k} max.	100	V
R_{h-k} max.	20	k Ω

HEATER

V_h	6.3	V
I_h	1.5	A

CAPACITANCES

C_{out}	8.4	pF
C_{in}	15.2	pF
C_{a-g1}	<1.0	pF
C_{g1-h}	<1.0	pF
C_{h-k}	11	pF

CHARACTERISTICS

Pentode connection

V_a	250	V
V_{g2}	250	V
V_{g3}	0	V
I_a	100	mA
I_{g2}	15	mA
V_{g1}	-12.2	V
g_m	11	mA/V
r_a	15	k Ω
μ_{g1-g2}	11	
V_{g1} max.		
$(I_{g1} = +0.3\mu A) -1.3$ V		

Triode connection
(g_2 connected to a)

V_a	250	V
I_a	70	mA
V_{g1}	-15.5	V
g_m	11.5	mA/V
r_a	910	Ω
μ	10.5	

OPERATING CONDITIONS AS SINGLE VALVE CLASS "A" AMPLIFIER

Pentode connection

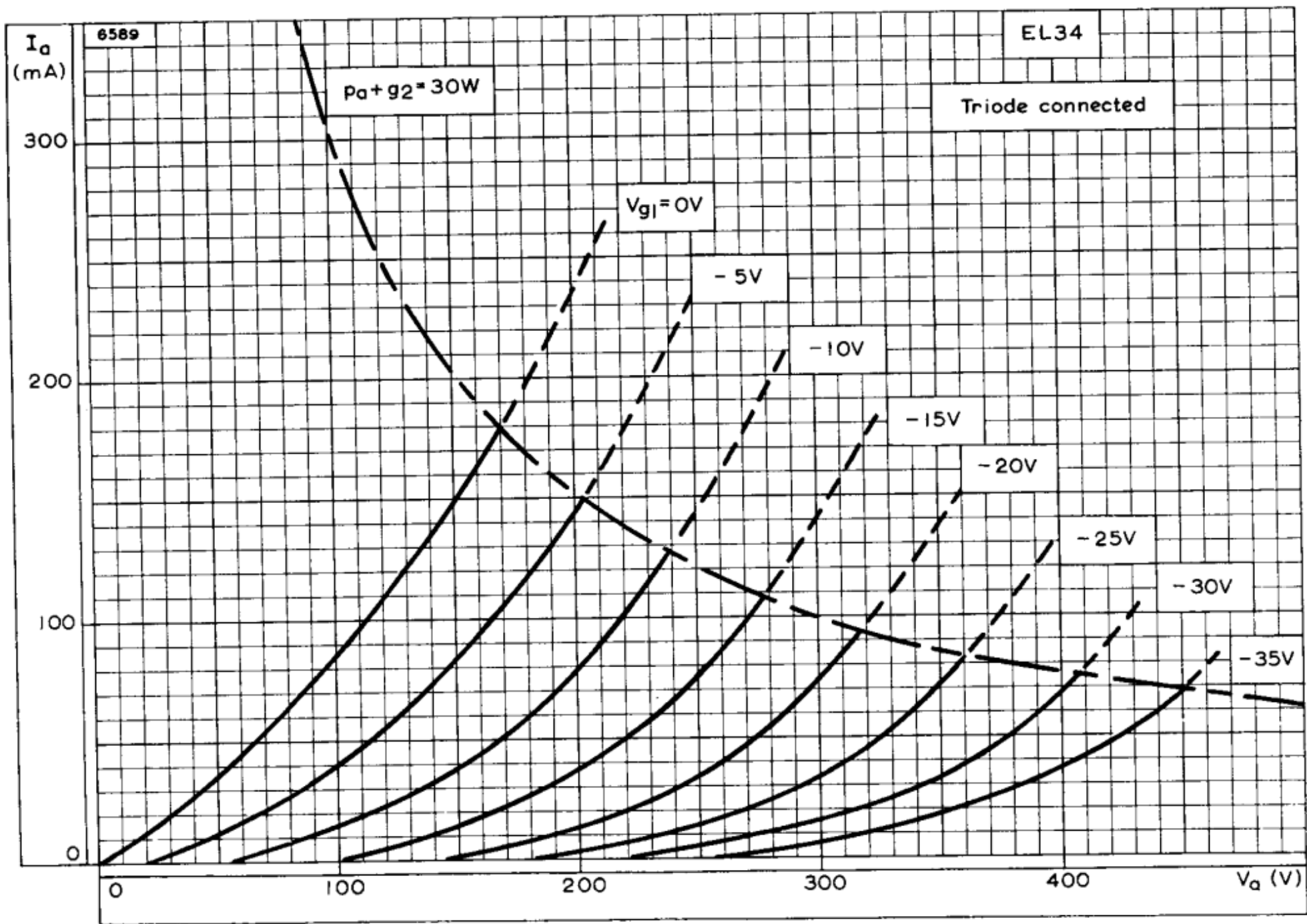
V_a	250	300	V
V_{g2}	250	300	V
V_{g3}	0	0	V
R_k	106	190	Ω
R_a	2.0	3.5	k Ω
I_a	100	83	mA
I_{g2}	15	13	mA
$V_{in(r.m.s.)}$ ($P_{out} = 50mW$)	500	450	mV
$V_{in(r.m.s.)}$	8.0	8.2	V
* P_{out}	11	11	W
* D_{tot}	10	10	%

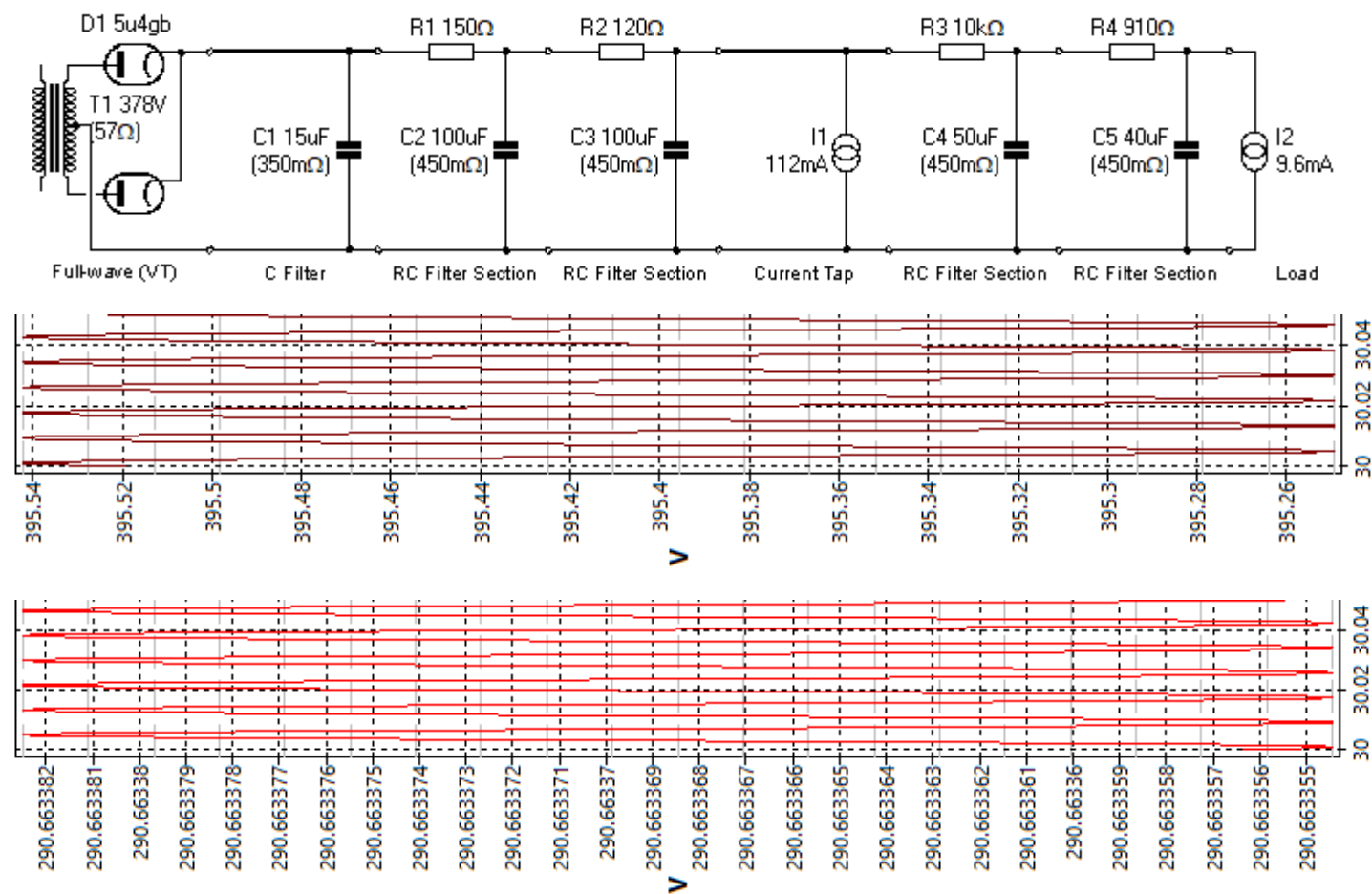
Triode connected

V_a max.	600	V
p_{a+g2} max. ($V_a = 500V$)	30	W
p_{h+g2} max. ($V_a = 600V$)	15	W

EL34

OUTPUT PENTODE





EDCOR ELECTRONICS CORPORATION

XPWR233 - 720V@300mA CT w/55V bias, 6.3V@5A CT, & 5V@4A

\$169.29 USD

Shipping calculated at checkout

SKU: XPWR233-100

Primary (p)













Voltage ①	100V	Current ①	2.809A
Impedance ①	0.238H	DC Resistance ①	0.784Ω
Operational Frequency ①	60Hz.	Inductance ①	0.238H

Secondary


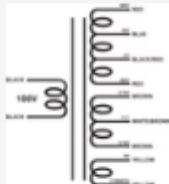
Tube Voltage ①	720V	Current(s) ①	0.3A, 5A, and 4A
Other Voltage(s) ①	6.3V and 5V	DC Resistance ①	57.272Ω, 0.035Ω, and 0.027Ω
Bias Voltage ①	55V	Inductance (Ls) ①	0.238H
Unloaded Voltage(s) ①	755.801V, 6.63V, and 4.972V		

$$755.8 \div 2 =$$

377.9

EL34 Zen Amp		Add Parts From <div></div>		<div><div></div> Share Copy</div> <div><div></div> Download</div>	
<div></div>	Product Details	Quantity	Availability	Unit Price	Extended Price
<div><div></div>1</div>	<div><div></div><div>RSD-560RCT-ND RS010560R0FE73 Vishay Dale RES 560 OHM 10W 1% WW AXIAL <div>EL34 RK</div></div></div>	<div>2</div> <div>Cut Tape (CT) <div></div></div>	Immediate	4.14000	\$8.28
<div><div></div>2</div>	<div><div></div><div>BC4529CT-ND MBE04140C2202FC100 Vishay Beyschlag/Draloric/BC Components RES 22K OHM 1% 1W AXIAL <div>EL34 36 Plate</div></div></div>	<div>2</div> <div>Cut Tape (CT) <div></div></div>	Immediate	0.66000	\$1.32
<div><div></div>3</div>	<div><div></div><div>56-PR01000106202JR500CT-ND PR01000106202JR500 Vishay Beyschlag/Draloric/BC Components RES 62K OHM 5% 1W AXIAL <div>EL34 RSC</div></div></div>	<div>2</div> <div>Cut Tape (CT) <div></div></div>	Immediate	0.25000	\$0.50
<div><div></div>4</div>	<div><div></div><div>541-CPF1500R00FKE14-ND CPF1500R00FKE14 Vishay Dale RES 500 OHM 1% 1W AXIAL <div>EL34 Screen Grid Stopper</div></div></div>	<div>2</div> <div></div>	Immediate	0.99000	\$1.98
<div><div></div>5</div>	<div><div></div><div>56-PR01000104302JR500CT-ND PR01000104302JR500 Vishay Beyschlag/Draloric/BC Components RES 43K OHM 5% 1W AXIAL <div>36 Grid Stopper</div></div></div>	<div>2</div> <div>Cut Tape (CT) <div></div></div>	Immediate	0.25000	\$0.50
<div><div></div>6</div>	<div><div></div><div>BC4688CT-ND PR01000101003JA500 Vishay Beyschlag/Draloric/BC Components RES 100K OHM 5% 1W AXIAL <div>36 Grid Leak</div></div></div>	<div>10</div> <div>Cut Tape (CT) <div></div></div>	Immediate	0.15200	\$1.52
<div><div></div>7</div>	<div><div></div><div>1928-DCP4G054006JD2KSSD-ND DCP4G054006JD2KSSD WIMA CAP FILM 40UF 10% 400VDC RADIAL <div>EL34 PSU</div></div></div>	<div>1</div> <div></div>	Immediate	11.82000	\$11.82
<div><div></div>8</div>	<div><div></div><div>RSC-10KRCT-ND RS00510K00FE73 Vishay Dale RES 10K OHM 5W 1% WW AXIAL <div>EL34 PSU</div></div></div>	<div>1</div> <div>Cut Tape (CT) <div></div></div>	Immediate	3.21000	\$3.21
<div><div></div>9</div>	<div><div></div><div>56-PR02000209100JR500CT-ND PR02000209100JR500 Vishay Beyschlag/Draloric/BC Components RES 910 OHM 5% 2W AXIAL <div>EL34 PSU</div></div></div>	<div>1</div> <div>Cut Tape (CT) <div></div></div>	Immediate	0.38000	\$0.38
<div><div></div>10</div>	<div><div></div><div>56-PR01000105103JR500CT-ND PR01000105103JR500 Vishay Beyschlag/Draloric/BC Components RES 510K OHM 5% 1W AXIAL <div>EL34 Grid Leak</div></div></div>	<div>2</div> <div>Cut Tape (CT) <div></div></div>	Immediate	0.25000	\$0.50
<div><div></div>11</div>	<div><div></div><div>541-RS010150R0FE12-ND RS010150R0FE12 Vishay Dale RS-10 150 1% E12 E3 <div>EL34 PSU</div></div></div>	<div>1</div> <div></div>	Immediate	3.53000	\$3.53
<div><div></div>12</div>	<div><div></div><div>541-RS010120R0FS73CT-ND RS010120R0FS73 Vishay Dale RES 120 OHM 10W 1% WW AXIAL <div>EL34 PSU</div></div></div>	<div>1</div> <div>Cut Tape (CT) <div></div></div>	Immediate	5.07000	\$5.07

Cart

PRODUCT	QUANTITY	TOTAL
 GXSE15-5K - 15W, 5K Ohms single ended guitar tube output transformer. 8 Ω \$89.16	<div>- 2 +</div> <div>Remove</div>	\$178.32
 XPWR233 - 720V@300mA CT w/55V bias, 6.3V@5A CT, & 5V@4A 100Vrms, 50/60Hz. \$169.29	<div>- 1 +</div> <div>Remove</div>	\$169.29

ESTIMATE SHIPPING

Country

United States

Province

Tennessee

Zip code

37055

ESTIMATE

There is one shipping rate for your address:

- FedEx: \$78.50

☐ Certificate of Compliance (CoC)

[Add a PO Number](#)

Total

\$347.61 USD

Shipping & taxes calculated at checkout

If you have a tax-exempt certificate, please email it to sales@edcorusa.com before placing order. Once received we will set your account to tax-exempt.

NOTE: A 3% cancellation fee may be applied to cancelled orders.

By clicking the checkout button, you hereby agree to and accept EDCOR's [terms and conditions](#).



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We accept

