



ELECTRONIC TUBE REFERENCE

25Z5

Rectifier - Full Wave electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

RECTIFIER-RECTIFIER

Indirectly heated full-wave rectifier and voltage-doubler tube for AC/DC receiver power supplies. Rated for approximately 700 V peak inverse voltage and 75 mA nominal output from a 25 V heater.

GENERAL CHARACTERISTICS

BASE DESIGNATION	6E	BASE PINS	6
NOMINAL HEATER	25 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Rectifier	
PEAK INVERSE VOLTAGE	700 V
NOMINAL OUTPUT CURRENT	75 mA
PEAK FORWARD CURRENT	450 mA
FORWARD VOLTAGE DROP	22 V
MAXIMUM HEATER-CATHODE VOLTAGE	350 V
Representative row for two identical rectifier sections; 22 V drop at 150 mA per plate.	

SECTION2 Rectifier	
PEAK INVERSE VOLTAGE	700 V
NOMINAL OUTPUT CURRENT	75 mA
PEAK FORWARD CURRENT	450 mA
FORWARD VOLTAGE DROP	22 V
MAXIMUM HEATER-CATHODE VOLTAGE	350 V
<i>Second physical rectifier section; electrical properties populated from corresponding identical section.</i>	

Full-wave rectifier and voltage-doubler tube.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1937 Raytheon Radio Receiving Tubes

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	25 V	Published heater/filament rating
Heater/filament current	300 mA	Published heater/filament rating

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage-doubler RMS voltage per plate	125 V	VoltageDoubler
Voltage-doubler peak plate current	500 mA	VoltageDoubler
Voltage-doubler DC output current	100 mA	VoltageDoubler
Half-wave RMS voltage per plate without series resistor	125 V	HalfWave
Half-wave RMS voltage per plate with series resistor	250 V	HalfWave
Half-wave peak current per plate	500 mA	HalfWave
Half-wave DC output current per plate	85 mA	HalfWave

1937 RAYTHEON RADIO RECEIVING TUBES

Section 2 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	25 V	Published heater/filament rating
Heater/filament current	300 mA	Published heater/filament rating

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage-doubler RMS voltage per plate	125 V	VoltageDoubler
Voltage-doubler peak plate current	500 mA	VoltageDoubler
Voltage-doubler DC output current	100 mA	VoltageDoubler
Half-wave RMS voltage per plate without series resistor	125 V	HalfWave
Half-wave RMS voltage per plate with series resistor	250 V	HalfWave
Half-wave peak current per plate	500 mA	HalfWave
Half-wave DC output current per plate	85 mA	HalfWave



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1940 RCA

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1940 RCA

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER VOLTAGE (A. C.or D. GC)	25 V	HEATER VOLTAGE (A. C.or D. GC)..... 25 Volts
HEATER CURRENT vevivnenrnnnnennnennannn	300 mA	HEATER CURRENT vevivnenrnnnnennnennannn. 0.3 Ampere
A-C PLaTE VoLtage Per PrLate (RMS)	125 V	A-C PLaTE VoLtage Per PrLate (RMS)..... 125 max. Volts
PeAx PLATE CURRENT.....cooiiiiininn	500	PeAx PLATE CURRENT.....cooiiiiininn.. 500 max. Milliamperes
D-C OUTPUT CURRENT. ..t eineenennnnnnnnnn	100	D-C OUTPUT CURRENT. ..t eineenennnnnnnnnn.. 100 max. Milliamperes

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
A-C PLATeE VoLTAGE Per Prate (RMS)	250 V	A-C PLATeE VoLTAGE Per Prate (RMS)... 125 max. 250* max. Volts
Peak PLATeE CURRENT (per plate)	500	Peak PLATeE CURRENT (per plate)..... 500 max. 500 max. Milliamperes
D-C OutpuT CURRENT (per plate)...eocvn	85	D-C OutpuT CURRENT (per plate)...eocvn. 85 85 max. Milliamperes
® On a-c input voltage above	100 V	® On a-c input voltage above 125 volts, it is necessary to connect a 100 ohm resistor in series
with each plate lead, or a	100 ohm	with each plate lead, or a 100 ohm resistor common to both plates (giving somewhat poorer regula-
°PERAT"	8	°PERAT"8f" _ wfiU@%@gfFR'ST'CS OPERATION AGE
L Eg=	225 V	L Eg=25 VOLTS €225 voLTs
_fç=	25 V	_fç=25 VOLTS - € ç=25 VOLTS
INFUT VOLTS CURVE	1 V	INFUT VOLTS CURVE . 30— vt d—1

1940 RCA
Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER VOLTAGE (A. C.or D. GC)	25 V	HEATER VOLTAGE (A. C.or D. GC)..... 25 Volts
HEATER CURRENT vevivnenrnnnnennnnennannn	300 mA	HEATER CURRENT vevivnenrnnnnennnnennannn. 0.3 Ampere
A-C PLATe VoLtage Per PrLate (RMS)	125 V	A-C PLATe VoLtage Per PrLate (RMS)..... 125 max. Volts
PeAx PLATE CURRENT.....cooiiiiinin	500	PeAx PLATE CURRENT.....cooiiiiinin.. 500 max. Milliamperes
D-C OUTPUT CURRENT. ..t einenennnnnnnnnn	100	D-C OUTPUT CURRENT. ..t einenennnnnnnnnn.. 100 max. Milliamperes
A-C PLATeE VoLTAGE Per Prate (RMS)	250 V	A-C PLATeE VoLTAGE Per Prate (RMS)... 125 max. 250* max. Volts
Peak PLATeE CURRENT (per plate)	500	Peak PLATeE CURRENT (per plate)..... 500 max. 500 max. Milliamperes
D-C OutpuT CURRENT (per plate)...eocvn	85	D-C OutpuT CURRENT (per plate)...eocvn. 85 85 max. Milliamperes

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
® On a-c input voltage above	100 V	® On a-c input voltage above 125 volts, it is necessary to connect a 100 ohm resistor in series
with each plate lead, or a	100 ohm	with each plate lead, or a 100 ohm resistor common to both plates (giving somewhat poorer regula-
°PERAT"	8	°PERAT"8f" _ wfiU@%@gfFR'ST'CS OPERATION AGE
L Eg=	225 V	L Eg=25 VOLTS €225 voLTs
_fç=	25 V	_fç=25 VOLTS - € ç=25 VOLTS
INFUT VOLTS CURVE	1 V	INFUT VOLTS CURVE . 30— vt d—1



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1948 Brimar Radio Valve Manual

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1948 BRIMAR RADIO VALVE MANUAL

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	25 V	—
HeaterOrFilamentCurrent	300 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RMSInputPerAnode	117 V	VoltageDoubler
RMSInputPerAnode	235 V	HalfWave

1948 BRIMAR RADIO VALVE MANUAL

Section 2 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterOrFilamentVoltage	25 V	—
HeaterOrFilamentCurrent	300 mA	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RMSInputPerAnode	117 V	VoltageDoubler
RMSInputPerAnode	235 V	HalfWave



SOURCE OPERATING CONDITIONS

1950 Sylvania

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1950 SYLVANIA

Section 1 · Rectifier

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Service	Full-wave rectifier / voltage doubler	—

1950 SYLVANIA

Section 2 · Rectifier

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Service	Full-wave rectifier / voltage doubler	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

Published test conditions and operating points. Values on this page are preserved as reported by this source.

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	25 V	Published heater/filament rating
Heater/filament current	300 mA	Published heater/filament rating
Tube voltage drop	22 V	At 150 mA DC

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC output current	75 mA	RectifierDoubler
Peak inverse voltage	700 V	RectifierDoubler
RMS supply voltage	235 V	RectifierDoubler
Peak current	450 mA	RectifierDoubler

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 2 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	25 V	Published heater/filament rating
Heater/filament current	300 mA	Published heater/filament rating
Tube voltage drop	22 V	At 150 mA DC

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC output current	75 mA	RectifierDoubler
Peak inverse voltage	700 V	RectifierDoubler
RMS supply voltage	235 V	RectifierDoubler
Peak current	450 mA	RectifierDoubler



SOURCE DATA APPENDIX

1961 Tung Sol

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1961 TUNG SOL

Section 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ACPlateVoltageRMS	235 V	PerPlate
PlateSupplyImpedance	20 ohm	VoltageDoubler;HalfWave
PlateSupplyImpedance	15 ohm	VoltageDoubler;FullWave

1961 TUNG SOL

Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ACPlateVoltageRMS	235 V	PerPlate
PlateSupplyImpedance	20 ohm	VoltageDoubler;HalfWave
PlateSupplyImpedance	15 ohm	VoltageDoubler;FullWave

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker