

Low-noise planar microwave triode for amplifier, mixer, and oscillator service from roughly 200 MHz to 4 GHz, with high transconductance and long-life variants.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 1.18 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.05 S
AMPLIFICATION FACTOR	200
MAXIMUM PLATE VOLTAGE	270 V
MAXIMUM PLATE DISSIPATION	7.5 W
MAXIMUM CATHODE CURRENT	33 mA
Promoted fields mapped from printed maximum-rating and characteristic headings; additional published values preserved in parameter rows.	

Planar microwave triode for amplifier, mixer and oscillator service from about 200 to 4000 MHz, with high transconductance and low noise.



SOURCE OPERATING CONDITIONS

194X Western Electric Random

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

194X WESTERN ELECTRIC RANDOM

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage	6.3 V	—
Heater/filament current	1.18 A	—
Transconductance	50000 uS	—
Amplification factor	200	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate/anode voltage	270 V	—
Maximum plate/anode dissipation	7.5 W	—
Maximum plate/cathode current	33 mA	—
Operating frequency	4000 Mc/s	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1965 Ericsson Longlife

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

1965 ERICSSON LONGLIFE

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current characteristic point	30 mA	—
Transconductance	50000 uS	AtPlateCurrent=30mA
Amplification factor	300 ratio	—
Noise figure at 500 MHz	6 dB	LessThan

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	200 V	Microwave
Frequency	4200 MHz	Microwave
Gain high level	6 dB	Output=500mW
Gain low level	10 dB	Output=50mW
Bandwidth	100 MHz	3dBDown



196X LM Ericsson

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

196X LM ERICSSON
Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	1.18 A	—
Transconductance	50000 uS	—
Amplification factor	200	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	270 V	—
Maximum plate dissipation	7.5 W	—
Useful frequency range	200–4000 Mc/s	—
Nominal heater voltage	6.3 V	—



SOURCE DATA APPENDIX

2026 Western Electric 400s

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

2026 WESTERN ELECTRIC 400S
Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage v + « « . +	6.3 volts	Heater Voltage v + « « . + 6.3 volts
Plate Voltage « + + + « o v v o	4 volts	Plate Voltage « + + + « o v v o 4 o « o & 200 volts
Gain (	50 decibels	Gain (50 milliwatts output) e . 9 decibels
Bandwidth (	3 megacycles	Bandwidth (3 db down) . . . 100 megacycles
Hester Voltage(	3 volts	Hester Voltage(3) “ see e e e e e - 6.3 --- volts
Plate Voltage . . « « ¢« & ¢ v o	4 volts	Plate Voltage . . « « ¢« & ¢ v o 4 « ¢ o 4 2 o o o o = « . 270 volts
Plate Current &	4 milliamperes	Plate Current & 4 & 4 o o s 4 + 4 o 0 see e s 33 milliamperes
Plate Seal Temperature . . . & & ¢ ¢ & ¢« & = = s	4 Centigrade	Plate Seal Temperature . . . & & ¢ ¢ & ¢« & = = s 4 + 150° Centigrade
Grid Sezl Temperature	4 Centigrade	Grid Sezl Temperature . . . + 4 « o « o 2 « o = ¢« « + &« 100° Centigrade
Heater-Cathode Voltage . ¢« ¢ « v ¢ v ¢« ¢ ¢ + o “ e s	45 volts	Heater-Cathode Voltage . ¢« ¢ « v ¢ v ¢« ¢ ¢ + o “ e s 45 volts
Plate Voltage . . . & . . . v v v v e v o t e e e s e	200 volts	Plate Voltage . . . & . . . v v v v e v o t e e e s e 200 volts
Plate Current v ¢« &	4 milliamperes	Plate Current v ¢« & 4 i e e e . e 30 milliamperes
Cathode Bias ReEBIStOT . « ¢ v &« v v v s ¢ « o o » » &	260 ohms	Cathode Bias ReEBIStOT . « ¢ v &« v v v s ¢ « o o » » & 260 ohms
Grid Supply Voltage e s s e e e e s	8 volts	Grid Supply Voltage e s s e e e e s 8 volts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Gain (	50 decibels	Gain (50 Milliwatts Output) + « « + & v & v v v v v o W 9 decibels
Gain (	500 decibels	Gain (500 Milliwatts CutDub) o v v o v o o o « v o o . 5 decibels
Band Width (	3 megacycles	Band Width (3 db Down) e e e e e e e e 100 megacycles
volts through a circuit resistance of L	16 volts	volts through a circuit resistance of L4.16 chums.
Heater Voltage sesvessnsesncnssnsanssasnsnansansnsitissasasantane	6.3 volts	Heater Voltage sesvessnsesncnssnsanssasnsnansansnsitissasasantane 6.3 volts
Cathode Bias RESiStOr seeresvotosnansnrnonosansassassssansasansnanse	260 ohms	Cathode Bias RESiStOr seeresvotosnansnrnonosansassassssansasansnanse 260 ohms
Grid Supply Voltage cseasssssssonccarssnasnannsasantaenosssnnannnd	8 volts	Grid Supply Voltage cseasssssssonccarssnasnannsasantaenosssnnannnd 8 volts
FrequenCy ueessasassstasnenstoasoatossasnasnsatassssssasstosnnnarnns	4000 megacycles	FrequenCy ueessasassstasnenstoasoatossasnasnsatassssssasstosnnnarnns 4000 megacycles
Gain (B	9 decibels	Gain (B0 Milliwatts QOutput) cosuesnsriorssstnanssenatscanasiannnns 9 decibels
Gain (	500 decibels	Gain (500 Milliwatts Qutput} soviinnssnnss texasasserestraasnens 3 decibels
Band Width (	3 megacycles	Band Width (3 db DOWN) suisesssevrvonasaasesrnssncasnatsssranasantans 100 megacycles

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