



ELECTRONIC TUBE REFERENCE

ECH42

Voltage - Triode (with diode, heptode or hexode) electronic tube

CONSOLIDATED TECHNICAL
DATA

2 SECTIONS
CONSTRUCTION
HEXODE-TRIODE

Triode-heptode oscillator-mixer for superheterodyne receivers. The separate triode provides local oscillation while the heptode performs frequency conversion with useful gain and oscillator-to-input isolation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 230 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Hexode	
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM SCREEN DISSIPATION	0.3 W
MAXIMUM CATHODE CURRENT	7 mA
<i>Hexode section; values semantically promoted from published characteristics/maximum-ratings tables where present.</i>	

SECTION2 Triode	
PLATE RESISTANCE	400000 Ω
TRANSCONDUCTANCE	0.0021 S
MAXIMUM PLATE VOLTAGE	175 V
MAXIMUM PLATE DISSIPATION	0.8 W
MAXIMUM CATHODE CURRENT	6 mA
<i>Triode section; values semantically promoted from published characteristics/maximum-ratings tables where present.</i>	

Triode-hexode for oscillator and frequency-converter service in radio receivers.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1951 Mullard Valve and Service Manual

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

1951 MULLARD VALVE AND SERVICE MANUAL

Section 1 · Hexode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cutoff characteristic	Variable-mu	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Service	Frequency changer / mixer	—

1951 MULLARD VALVE AND SERVICE MANUAL

Section 2 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Service	Local oscillator	—



SOURCE OPERATING CONDITIONS

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1953 La Radiotechnique

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1953 LA RADIOTECHNIQUE

Section 1 · Hexode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Haute tension Vh	250 V	Hexode

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Resistance du circuit dela grille3. Rg,4,r	22 Kohm	Hexode
Courant de la grille 3(1) . . . Ig4+7	350 uA	Hexode
Tension de la grille 1 Veg,	2 V	Hexode
Tension des grilles 2et4 Vg,4,	8 V	Hexode
Courant anodique Tay	3 mA	Hexode
Courant des grilles 2et4 . . . 18544	3 mA	Hexode
Resistance interme - P > 1 MQ	1 Mohm	Hexode
(1) Si on choisit Rg, 4 7	47 Kohm	Hexode
Tension des grilles 2et4 . . . Vg,,,	125 V	Hexode
Puissance dissipee surles grilles2et4 Pg,,,	0.3 W	Hexode
Courant cathodique._ k	7 mA	Hexode

1953 LA RADIOTECHNIQUE

Section 2 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Indireet (cathode isolee du filament) . . Ê Vft	63 V	Triode
Alimentation du filament en parallele. If	230 mA	Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tension de l'anode Var	100 V	Triode
Tension de la grille Vgs4yq	-2 V	Triode
Courant anodique Iar	55 mA	Triode

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Resistance interne P	400 ohm	Triode
Pente. + . . S	2.1 mA/V	Triode
Tension de l'anode Var	175 V	Triode
Puissance dissipee sur l'anode . . Pay s	8 W	Triode
Resistance du circuit de la grille. Rg,	3 Mohm	Triode
Resistanceentrefilamentet cathode Rkf	20 Kohm	Triode
Tension entre filament et cathode. Vkf	50 V	Triode
pav MQ 27 KQ	27 Kohm	Triode
vat	-2 V	Triode
0 VaT	100 V	Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Capacite de la grille l hexode . . Cg,	44 pF	Triode
Capacite de l'anode hexode . . Can	9 pF	Triode
Capacite de la grille triode	7.6 pF	Triode
Capacite de l'anode triode . . . Car	45 pF	Triode
Capacite d'entree hexode . . . Cg,	52 pF	Triode


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1958 Brimar Radio Valve No 7

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1958 BRIMAR RADIO VALVE NO 7

Section 1 · Hexode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Conversion Conductance	750 μ S	FrequencyChanger

1958 BRIMAR RADIO VALVE NO 7

Section 2 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	230 mA	—



SOURCE OPERATING CONDITIONS

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1968 Mazda Belvu

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1968 MAZDA BELVU

Section 1 · Hexode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	230 mA	Published nominal value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	1.5 W	Published maximum rating
Application	Oscillator-frequency converter	Printed source application

1968 MAZDA BELVU

Section 2 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal value
Heater current	230 mA	Published nominal value

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	0.8 W	Published maximum rating

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