



ELECTRONIC TUBE REFERENCE

ECC33

Voltage - Dual Triode (similar) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

High-slope, low-impedance double triode explicitly designed for flip-flop, scaling, and computer circuits, providing two similar sections for digital switching and counting applications.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 400 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	9700 Ω
TRANSCONDUCTANCE	0.0036 S
AMPLIFICATION FACTOR	35
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Published Mullard ratings and characteristics promoted from the supplied source.</i>	

SECTION2 Triode	
PLATE RESISTANCE	9700 Ω
TRANSCONDUCTANCE	0.0036 S
AMPLIFICATION FACTOR	35
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Second physical triode section; added to align rows with SectionCount.</i>	

High-slope low-impedance double triode for flip-flop, scaling, and computer circuits.



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 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	400 mA	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Mullard

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

1963 MULLARD

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	—
Grid voltage	-4 V	—
Plate current	9 mA	—
Transconductance	3.6 mA/V	—
Amplification factor	35	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage maximum	300 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate dissipation maximum	2.5 W	—
Cathode current maximum	20 mA	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Inter-section plate capacitance	0.75 pF	—
Plate-grid capacitance each section	2.5 pF	—
Grid-cathode capacitance each section	3.5 pF	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Flip-flop / scaler / computer circuit	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1967 Mullard Receiving Tubes for Maintenance

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

1967 MULLARD RECEIVING TUBES FOR MAINTENANCE

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
gm	3.6 mA	Published in approved ECC33.pdf target datasheet; Section1
Ik max	20 mA	Published in approved ECC33.pdf target datasheet; Section1