



ELECTRONIC TUBE REFERENCE

7643

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Long-life ruggedized triode-pentode for mixer/RF/AF amplification plus oscillator, multivibrator, and blocking-oscillator service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	6.3 V / 330 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	3600 Ω
TRANSCONDUCTANCE	0.0062 S
AMPLIFICATION FACTOR	18
MAXIMUM PLATE VOLTAGE	275 V
MAXIMUM PLATE DISSIPATION	1.75 W
MAXIMUM GRID DISSIPATION	0.1 W
MAXIMUM CATHODE CURRENT	18 mA
Alias row from E80CF source.	

SECTION2 Pentode	
PLATE RESISTANCE	400000 Ω
TRANSCONDUCTANCE	0.0062 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	275 V
MAXIMUM SCREEN VOLTAGE	225 V
MAXIMUM PLATE DISSIPATION	2.15 W
MAXIMUM SCREEN DISSIPATION	0.8 W
MAXIMUM GRID DISSIPATION	0.1 W
MAXIMUM CATHODE CURRENT	18 mA
<i>Alias row from E80CF source.</i>	

7643 is a TriodePentode device in the supplied Amperex literature. Long-life ruggedized triode-pentode. The pentode section is intended for mixer, RF, or AF amplification; the triode section is intended for oscillator, multivibrator, or blocking-oscillator service.



SOURCE OPERATING CONDITIONS

1953 AEG

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

1953 AEG

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TypicalTriodePlateVoltage	100 V	—
TypicalTriodePlateCurrent	14.4 mA	—

1953 AEG

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TypicalPentodePlateVoltage	170 V	—
TypicalPentodePlateCurrent	10 mA	—
TypicalPentodeScreenCurrent	2.8 mA	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1953 Amperex

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

1953 AMPEREX

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	6200 μ S	—
Amplification Factor	18	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	275 V	—
Maximum Plate Dissipation	1.75 W	—
Maximum Grid Dissipation	0.1 W	—
Maximum Cathode Current	18 mA	—

1953 AMPEREX

Section 2 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	400000 ohm	—
Transconductance	6200 μ S	—
Amplification Factor	40	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	275 V	—
Maximum Screen Voltage	225 V	—
Maximum Plate Dissipation	2.15 W	—
Maximum Screen Dissipation	0.8 W	—
Maximum Grid Dissipation	0.1 W	—
Maximum Cathode Current	18 mA	—



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ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Amperex Condensed

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

1963 AMPEREX CONDENSED

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	100 V	TriodeSection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	14 mA	TriodeSection
Cathode resistor	120 ohm	TriodeSection

1963 AMPEREX CONDENSED

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	170 V	PentodeSection
Plate current	10 mA	PentodeSection
Cathode resistor	155 ohm	PentodeSection
Screen supply voltage	170 V	PentodeSection
Screen current	2.8 mA	PentodeSection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	0.4 MOhm	PentodeSection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	5.6 pF	PentodeSection
Output capacitance	3.4 pF	PentodeSection
Grid-to-plate capacitance	—0.025 pF	PentodeSection; Maximum

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