



ELECTRONIC TUBE REFERENCE

12SQ7GT

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

CONSOLIDATED TECHNICAL
DATA

3 SECTIONS

CONSTRUCTION

DIODE-DIODE-TRIODE

GT-envelope double-diode high-mu triode for detector, AVC, and audio voltage-amplifier service. Its paired diodes perform signal and control-voltage rectification while the triode provides substantial gain for the recovered audio signal.

GENERAL CHARACTERISTICS

BASE DESIGNATION	80	BASE PINS	8
NOMINAL HEATER	12.6 V / 150 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Diode

No fixed ratings recorded.

Promoted from printed maximum/characteristic columns; additional published values retained in TUBE_SECTION_PARAMETER. The chart identifies the repeated detector-diode section(s) but does not publish separate diode electrical ratings on this row.

SECTION2 Diode

No fixed ratings recorded.

Second physical diode section added in approved section-structure reconciliation.

SECTION3 Triode	
PLATE RESISTANCE	85000 Ω
TRANSCONDUCTANCE	0.001175 S
AMPLIFICATION FACTOR	100
MAXIMUM PLATE VOLTAGE	300 V
<i>Promoted from printed maximum/characteristic columns; additional published values retained in TUBE_SECTION_PARAMETER.</i>	

Double-diode triode for detection, AVC, and audio voltage amplification.

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 3 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	4.2 pF	Section1
Output capacitance	3.4 pF	Section1
Grid-to-plate capacitance	0.8 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Control-grid voltage	-2 V	ClassA
Plate current	1.1 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	85000 Ω	Section1
Transconductance	1175 μS	Section1
Amplification factor	100	Section1

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Ferranti Technical Handbook

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

1961 FERRANTI TECHNICAL HANDBOOK

Section 1 · Diode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Detector / AVC	—

1961 FERRANTI TECHNICAL HANDBOOK

Section 3 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	AF voltage amplifier	—