

ELECTRONIC TUBE REFERENCE

EM12

Voltage Pentode or Tetrode (under 100V) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
TETRODE

Low-noise electrometer tetrode for digital instruments and precision measuring circuits. High input resistance and reduced noise suit very-small-current measurement.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 120 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Tetrode	
TRANSCONDUCTANCE	0.00045 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	15 V
MAXIMUM CATHODE CURRENT	0.72 mA
Promoted ratings and characteristics are taken from the printed target-tube entry in the approved PDF.	

Low-noise electrometer tetrode for digital instruments and measuring circuits.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1981 Russian Tubes Katsnelson and Larionov

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

1981 RUSSIAN TUBES KATSNELSON AND LARIONOV

Section 1 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Published nominal/basic-parameter heater condition.
Heater current	120 mA	Published heater current.
Plate current	0.35 mA	Published basic-parameter operating point.
Screen current	0.16 mA	Published basic-parameter operating point.
Transconductance	450 μ S	Published basic-parameter value; normalized to μ S.
Amplification factor	40	Published amplification factor.
Grid current	0.00000001 mA	Published in the filename-designated tube entry.
Low-frequency equivalent noise resistance	80 k Ω	Published in the filename-designated tube entry.
Service life	2000 h	Published in the filename-designated tube entry.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	15 V	Published limiting operating value.
Maximum cathode current	0.7200000000000001 mA	Published limiting cathode-current value.