RAYTHEON

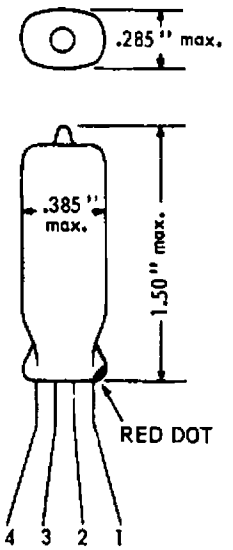
TECHNICAL INFORMATION

SUBMINIATURE TRIODE

Excellence in Electronics

TYPE CK6121

The CK6121 is a filament type triode of subminiature construction designed for use as a Class C amplifier or frequency multiplier in the VHF frequency band. The characteristics of this type are optimized for high grid drive conditions typical of frequency multiplier service. The CK6121 is suitable for battery operated, short life special applications at the typical Class C operation conditions indicated below. The filament of the CK6121 should not be operated continuously inasmuch as its 10 hour life rating is chiefly a function of the filament temperature and hours of filament operation. The flexible terminal leads may be soldered or welded directly to the terminals of circuit components without the use of sockets. Standard inline subminiature sockets may be used by cutting the leads to a suitable length.



MECHANICAL DATA

ENVELOPE: T-2X3 Glass

BASE: None (0.016" tinned flexible leads. Length: 1.5" min. Spacing: 0.048" center-to-center)

TERMINAL CONNECTIONS: *(Red dot is adjacent to Lead 1)*

Lead 1 Plate
Lead 2 Filament, negative
Lead 3 Grid
Lead 4 Filament, positive

MOUNTING POSITION: Any

ELECTRICAL DATA

DIRECT INTERELECTRODE CAPACITANCE: (*μμfds.*) (unshielded)

Grid to Plate	1.4
Grid to Filament	1.4
Plate to Filament	1.9

RATINGS-ABSOLUTE MAXIMUM VALUES - CLASS C OPERATION:

Filament Voltage (dc)	1.25± 20%	volts
DC Plate Voltage	185	volts
DC Negative Grid Bias	90	volts
DC Plate Current	8	ma.
DC Grid Current	0.45	ma.
Peak RF Grid Drive Voltage	100	volts
Plate Dissipation	1.1	watts

CHARACTERISTICS AND TYPICAL OPERATION - CLASS A1 AMPLIFIER:

Filament Voltage (dc)	1.25	volts
Filament Current	0.12	amp.
Plate Voltage	135	volts
Grid Voltage	-5	volts
Transconductance	1600	μmhos
Amplification Factor	15	
Plate Current	4.0	ma.
Grid Voltage for Ib= 15 μa.	-10	volts

CHARACTERISTICS AND TYPICAL OPERATION - CLASS C FREQUENCY DOUBLER:

Filament Voltage (dc)	1.5	volts
Filament Current	0.12	amp.
DC Plate Voltage	185	volts
Grid Resistor	0.24	meg.
Peak RF Grid Drive Voltage (F= 80 Mc)	95	volts
DC Grid Current (approx.)	0.35	ma.
DC Plate Current	7.0	ma.
Plate Input Power	1.3	watts
Useful RF Power Output (F= 160 Mc)	0.2	watts.

Tentative Data

RAYTHEON MANUFACTURING COMPANY

RECEIVING AND CATHODE RAY TUBE OPERATIONS

August 30, 1955 NEWTON 58, MASS.