



*Excellence in Electronics*

**TYPE  
CK6147**

The CK6147 is a filament type R.F. power pentode of subminiature construction designed for use as an intermittent duty cycle Class A or Class C amplifier such as in portable transceiver equipment or as a frequency doubler at output frequencies as high as 400 mc. It is designed for dependable operation under conditions of shock and vibration usually found in mobile and aircraft applications. The flexible terminal leads may be soldered or welded directly to 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-3 Glass

**BASE:** Subminiature Button 8-pin (0.016" tinned flexible leads, Length: 1.50" min.)

**TERMINAL CONNECTIONS:**

- |                           |                               |
|---------------------------|-------------------------------|
| Lead 1 Filament, negative | Lead 5 Filament Center - Tap, |
| Lead 2 No Connection      | Grid #3, (F + parallel)       |
| Lead 3 Plate              | Lead 6 Grid #2                |
| Lead 4 No Connection      | Lead 7 Filament, positive     |
|                           | Lead 8 Grid #1                |

**MOUNTING POSITION:** Any

**ELECTRICAL DATA**

**DIRECT INTERELECTRODE CAPACITANCES:**

	Unshielded	Shielded
Grid to Plate	0.06	0.055 max.
Input	2.6	2.6
Output	2.15	3.0

**RATINGS - ABSOLUTE MAXIMUM VALUES:**

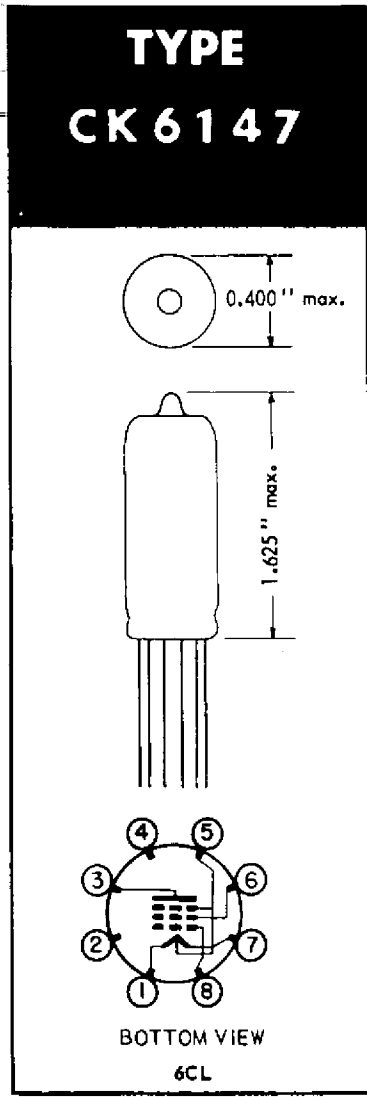
Filament Voltage (dc)	1.25 / 2.5 ± 12%	volts
Plate Voltage	180	volts
Grid #2 Voltage	125	volts
Grid #1 Voltage	-100	volts
Plate Dissipation	1.5	watts
Grid #2 Dissipation	0.6	watts
Cathode Current	14	ma.
Altitude	60,000	feet
Impact	500	G

**CHARACTERISTICS AND TYPICAL OPERATION - CLASS A1 AMPLIFIER:**

Filament Voltage	1.25 / 2.5	volts
Filament Current	125 / 62.5	ma.
Plate Voltage	125	volts
Grid #2 Voltage	125	volts
Grid #1 Voltage	-7.5	volts
Plate Current	5.5	ma.
Grid #2 Current	0.9	ma.
Transconductance	1600	μmhos
Plate Resistance (approx.)	0.175	meg.

**CHARACTERISTICS AND TYPICAL OPERATION - FREQUENCY DOUBLER TO 250 MC:**

Filament Voltage (dc)	1.25	volts
Filament Current	125	ma.
DC Plate Voltage	120	volts
DC Grid #2 Voltage	120	volts
Grid Bias Resistance	0.22	meg.
Peak RF Grid Drive Voltage (125 Mc.)	80	volts
Plate Current	6.5	ma.
Grid #2 Current	2.6	ma.
Grid #1 Current (approx.)	325	μa.
Useful Power Output	120	mw.



Tentative Data

RAYTHEON MANUFACTURING COMPANY

RECEIVING AND CATHODE RAY TUBE OPERATIONS