

Photomultiplier Tube

S-11 RESPONSE
10-STAGE, HEAD-ON, FLAT-FACEPLATE

ELECTROSTATICALLY FOCUSED
DYNODE STAGES

For Detection and Measurement of Nuclear Radiation and Other Low-Level Light Sources in Scintillation Counters

The 2061 is electrically similar to type 6342A except for the following performance characteristic and that the anode luminous sensitivity and equivalent noise input ratings shown for the 6342A do not apply for type 2061.

The 2061 is supplied with a medium-shell diheptal base attached to flexible leads to facilitate testing. After testing, the attached base of the 2061 should be removed prior to installing the tube in a given system.

PERFORMANCE CHARACTERISTIC

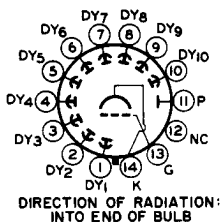
Minimum Pulse Height^a. 0.13 V

^a Pulse height is defined as the amplitude of the anode pulse voltage (referred to anode) measured across a $100 \pm 5\%$ -kilohm resistor and a total capacitance of $92 \pm 3\%$ pF in parallel. An anode-to-cathode voltage of 1130 volts is applied across a voltage-divider network having a $1.5 \pm 5\%$ megohm resistor between cathode and dynode No. 1, $450 \pm 5\%$ -kilohm resistors between each succeeding stage including dynode No. 10 to anode. The focusing electrode is adjusted to that value between 0% and 60% of dynode No. 1 potential (referred to cathode) which will provide maximum anode current. The 662-KeV photon from an isotope of cesium having an atomic mass of 137 (^{137}Cs) and a cylindrical 2 inch x 2 inch thallium-activated sodium-iodide scintillator [NaI(Tl)] type 8DB, or equivalent are used. The scintillator is manufactured by the Harshaw Chemical Corporation, 1945 East 97th Street, Cleveland 6, Ohio. The ^{137}Cs is in direct contact with the metal end of the scintillator. The faceplate end of the crystal is coupled to the 2061 by a coupling fluid such as Dow Corning Corp., Type DC200 (Viscosity of 100 centipoise) manufactured by the Dow Corning Corp., Midland, Michigan, or equivalent.

BASING DIAGRAM (Bottom View)

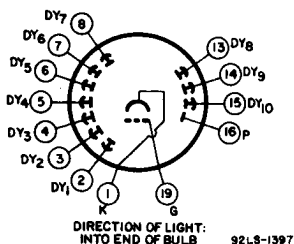
With Base Attached

- Pin 1 - Dynode No. 1
- Pin 2 - Dynode No. 2
- Pin 3 - Dynode No. 3
- Pin 4 - Dynode No. 4
- Pin 5 - Dynode No. 5
- Pin 6 - Dynode No. 6
- Pin 7 - Dynode No. 7
- Pin 8 - Dynode No. 8
- Pin 9 - Dynode No. 9
- Pin 10 - Dynode No. 10
- Pin 11 - Anode
- Pin 12 - No Connection
- Pin 13 - Focusing Electrode
- Pin 14 - Photocathode



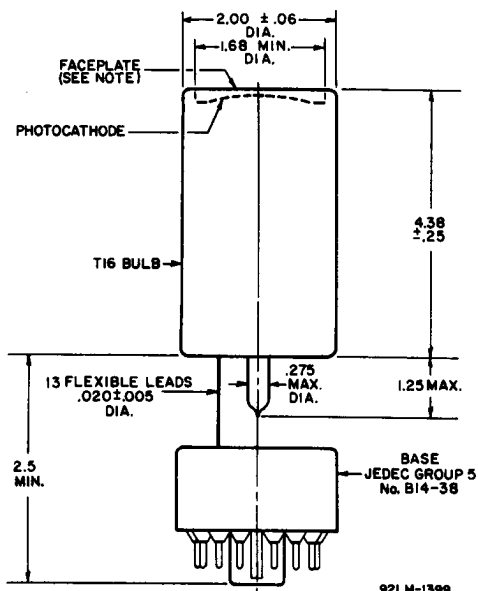
TERMINAL CONNECTIONS (Bottom View)
With Base Removed

- Lead 1 - Photocathode
- Lead 2 - Dynode No.1
- Lead 3 - Dynode No.2
- Lead 4 - Dynode No.3
- Lead 5 - Dynode No.4
- Lead 6 - Dynode No.5
- Lead 7 - Dynode No.6
- Lead 8 - Dynode No.7
- Lead 13 - Dynode No.8
- Lead 14 - Dynode No.9
- Lead 15 - Dynode No.10
- Lead 16 - Anode
- Lead 19 - Focusing Electrode



92LS-1397

DIMENSIONAL OUTLINE



92LM-1399

DIMENSIONS IN INCHES

Note: Within 1.68-inch diameter, deviation from flatness of external surface of faceplate will not exceed 0.010 inch from peak to valley.

