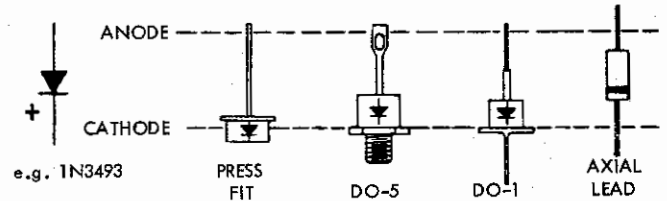


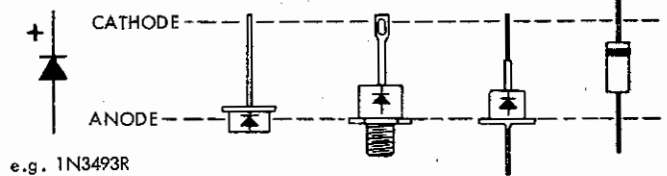
DIODE AND RECTIFIER POLARITY MARKING

In the process of specifying the polarities of the various rectifier models, the following convention has evolved. The arrow indicates the direction of forward current flow. That is, the arrow points toward the cathode terminal of the device. Alternately, a dot or band at one end of the body indicates the cathode terminal. In circuits, connect the cathode to B+.

CATHODE TO CASE (Positive Case)



ANODE TO CASE (Negative Case)



POWER TRANSISTOR TEST

The transistor used in the radio can be expected to give unusually long trouble free life. However, transistor checks may be made as follows: a rough check of transistor condition can be made with an ohmmeter. This check primarily measures the ability of the transistor to conduct current in one direction, and to resist current flow in the opposite direction. The resistance in the conduction direction is very low in relation to the resistance in the non-conduction direction. This check is made by connecting the ohmmeter leads as shown in illustration.

A closer check of the transistor condition can be made by constructing the circuit shown from standard parts. Mount the transistor on a heat radiator made of a 1/8 inch thick piece of copper or aluminum, with a minimum area of 40 square inches. (See detail of heat radiator in illustration). Transistor must be securely mounted to the heat radiator; connect transistor into the circuit shown in the illustration by using clips - DO NOT SOLDER TO TRANSISTOR. The condition of the transistor is determined by its gain. The gain should be over 20. To check the gain, proceed as follows:

1. Measure the DC voltage drop across the 1.5K and 10 ohm resistors.
2. Substitute the values obtained into the equation below as follows: divide the DC voltage drop across the 10 ohm resistor, multiply the results obtained by 110.

$$\text{GAIN} = \frac{\text{DC voltage drop across 10 ohm resistor}}{\text{DC voltage drop across 1.5K resistor}} \times 110$$

