

## BCD/Decimal Decoders/Drivers

## General Description

The DM5441A/DM7441A is a BCD-to-decimal decoder designed to drive gas-filled NIXIE tubes. The device is also capable of driving other types of low-current lamps and relays.

An over-range decoding feature provides that if binary numbers between 10 and 15 are applied to the input, the least significant bit (0-5) will be decoded on the output.

The DM54141/DM74141 is a BCD-to-decimal decoder designed specifically to drive cold-cathode indicator tubes.

Full decoding is provided for all possible input states. For binary inputs 10 through 15, all the outputs are off. Therefore the DM54141/DM74141, combined with

a minimum of external circuitry, can use these invalid codes in blanking leading- and/or trailing-edge zeros in a display.

Input clamp diodes are also provided to clamp negative-voltage transitions in order to minimize transmission-line effects.

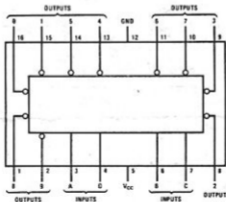
## Features

- Drive cold-cathode, numeric indicator tubes directly
- Fully decoded inputs
- Low leakage current
 

DM54/7441A	1.8μA @ 50V
DM54/74141	50μA @ 55V
- Low power dissipation
 

DM54/7441A	105 mW typical
DM54/74141	55 mW typical

## Connection Diagram



5441A(J), (W); 7441A(J), (N), (W);  
54141(J), (W); 74141(J), (N), (W)