

NUMERICAL INDICATOR**engineering data report****7009****MINIATURE NIXIE* (BD-200S)**

The 7009 (BD-200S) is a gas-filled, cold cathode, 10 digit ("0" through "9"), miniature indicating tube, having a common anode with a suppressor screen to minimize darkening of the viewing dome. This tube features a cup design providing a non-glare background. It is intended for use as a direct in-line read-out device.

MECHANICAL DATA
 (SEE FIGURE 1)

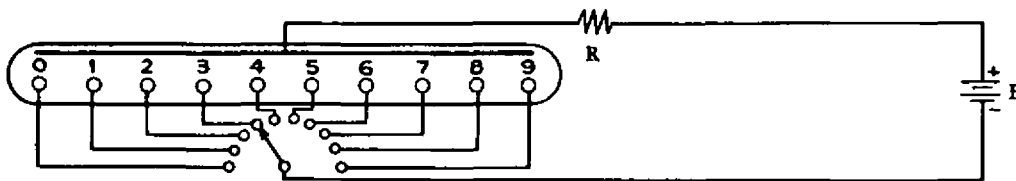
Overall Length.....	1.175" Max. (cut leads)
	2.325" Max. (long leads)
Seated Height.....	0.925" Max.
Bulb Diameter.....	0.650" Max.
Envelope Connections.....	See Figure 2
Height of Numerals.....	0.305" Nominal
	See Figure 1
Numeral Design	
(Human Engineered).....	See Figure 3
Socket (SK116) 11 Pin.....	See Figure 4
Weight.....	0.5 Oz. Max.
Mounting Position.....	See Note 1
Cathode(s).....	Glow Discharge

ELECTRICAL DATA
1. ABSOLUTE RATINGS:

Ionization Voltage.....	170 V. Max. (See Note 2)
Supply Voltage.....	170 V. Min. (See Note 2)
Cathode Current	
Peak.....	2.0 Ma. Max.
Average.....	1.0 Ma.

2. TEST CONDITIONS: (See Typical Circuit)

Supply Voltage.....	170 Vdc
Series Resistor.....	68 K Ohms
Cathode Current.....	0.70 Ma. Min.
	1.20 Ma. Max.

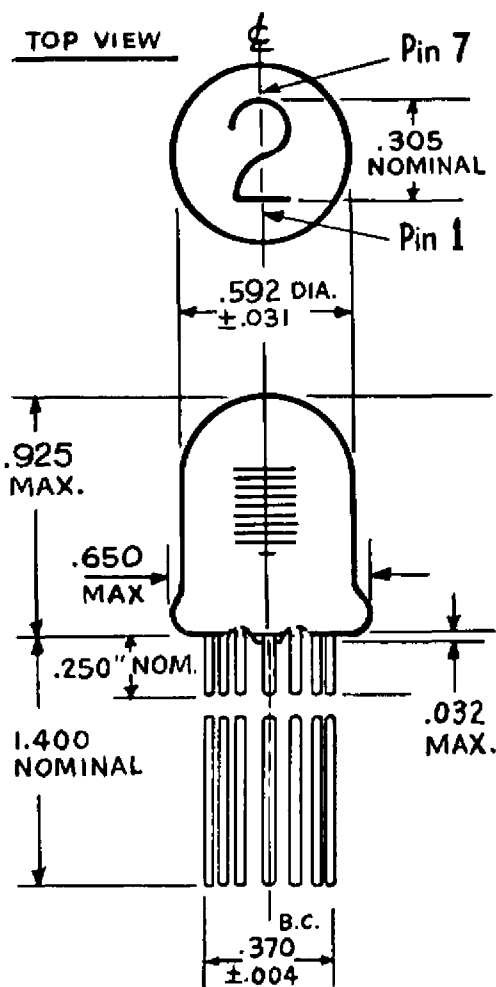
TYPICAL CIRCUIT

RECOMMENDED OPERATING CONDITIONS
 (SEE NOTE 2)

E	R
170V	68K
250V	150K
300V	200K

NOTES

(1) The tube socket is mounted with respect to the viewing position so that a line intersecting pins 1 & 7 is vertical with pin 7 on top. This orients the numbers in the correct viewing position. They are viewed through the top of the tube.

(2) All 7009 tubes will ionize at 170 V. or less. The minimum supply voltage should be 170 V.; however, the use of the highest voltage available with the appropriate series resistor is recommended to maintain cathode current within the specified limits.

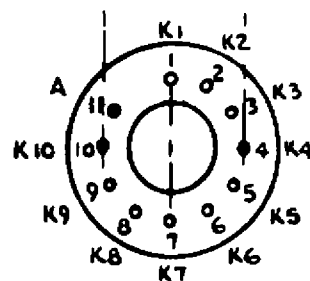


OUTLINE DRAWING
FIG. 1

1234567890

HUMAN ENGINEERED NUMBER SHAPES
USED ON ALL TUBE TYPES

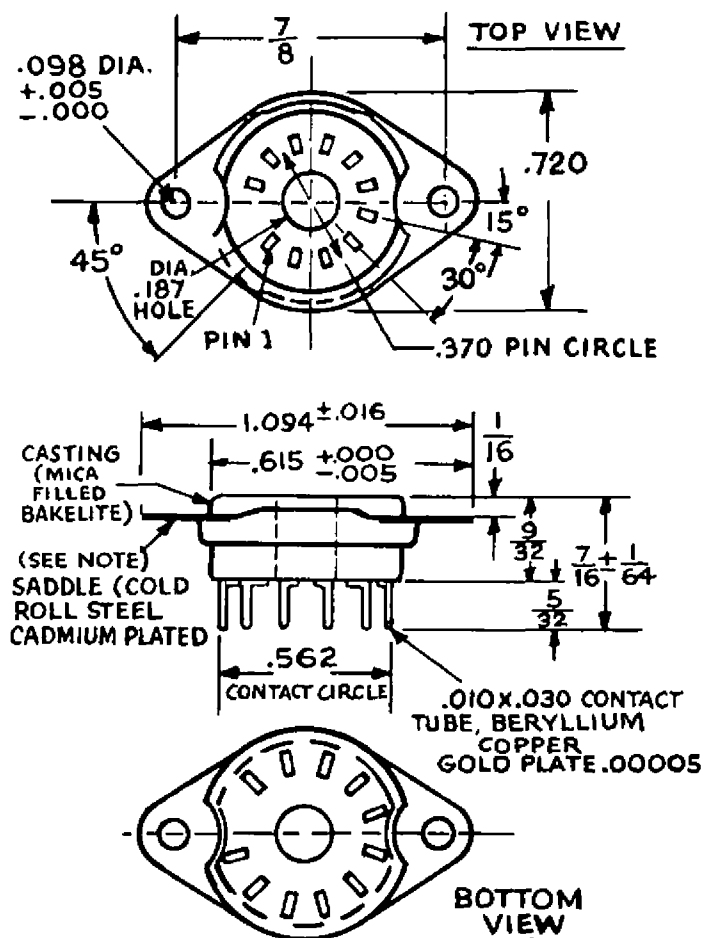
FIG. 3



BOTTOM VIEW

ENVELOPE CONNECTION DIAGRAM

FIG. 2



CONTACT SOCKET ASSEMBLY SK 116

FIG. 4

Burroughs Corporation

ELECTRONIC TUBE DIVISION

Plainfield, New Jersey

AN APPLICATIONS ENGINEERING DEPARTMENT,
OFFERING ENGINEERING SERVICE AND CONSULTATION,
HAS BEEN SET UP TO ASSIST YOU IN TAKING FULL ADVANTAGE
OF THIS DEVICE. WRITE FOR FURTHER INFORMATION.