

# Signetics

## Interface—Display Drivers

### DM 8880N—HIGH VOLTAGE 7-SEGMENT DECODER/DRIVER

#### GENERAL DESCRIPTION

The DM8880 is a High Voltage Seven-Segment Decoder/Driver designed to decode BCD and drive gas filled seven-segment display tubes.

Decoding is performed by a 16 x 7 read only memory. Thus, for applications desiring other fonts, or applications not using standard BCD inputs, the ROM contents can be altered via metal mask change to produce any seven-segment combination for any 16 binary input combinations.

The output of the ROM is used to drive high voltage constant current sink generators. The current sinks will withstand 87V output min. The current sinks are ratioed to the B output current as required for even illumination of the segments. Output currents may be varied over a 0.2 to 1.5 mA range through use of the external current programming input.

Blanking input provides unconditional blanking of any output display, while the ripple blanking pins allow simple leading or trailing zero blanking.

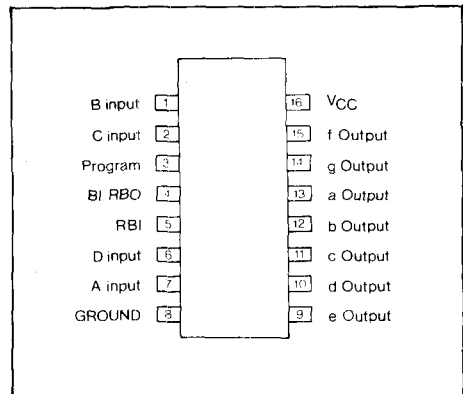
#### FEATURES

- Current Source Outputs
- Adjustable Output Current—0.2 to 1.5 mA
- High output breakdown voltage—110V Typ
- Suitable for multiplex operation
- Blanking and ripple blanking provisions
- Low Fan-in and low power

#### REFERENCE TABLE

TYPE NO.	STOCK NO.	OUTLINE DRWG. NO.
DM8880N	55806C	2

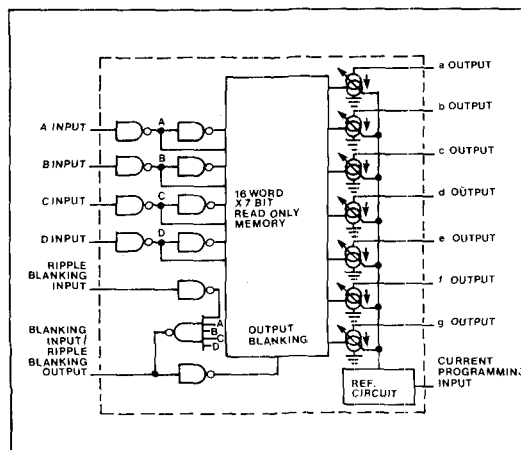
#### CONNECTION DIAGRAM



#### MAXIMUM RATINGS

V <sub>CC</sub>	7V
Input Voltage (Except B1)	6V
Input Voltage (B1)	V <sub>CC</sub>
Power Dissipation (Note 1)	600mW
Operating Temperature Range	0°C to 70°C
Storage Temperature Range	-65°C to 150°C
Lead Temperature (Soldering, 10 sec)	300°C

#### LOGIC AND CONNECTION DIAGRAMS



#### TRUTH TABLE

Decimal or function	RBI	D	C	B	A	BI/RBO	a	b	c	d	e	f	g	Display
0	1	0	0	0	0	1	0	0	0	0	0	0	0	1
1	X	0	0	0	1	1	1	0	0	1	1	1	1	
2	X	0	0	1	0	1	0	0	1	0	0	1	0	
3	X	0	0	1	1	1	0	0	0	0	1	1	0	
4	X	0	1	0	0	1	1	0	0	1	1	0	0	
5	X	0	1	0	1	1	1	0	1	0	0	1	0	
6	X	0	1	1	0	1	0	1	0	1	0	0	0	
7	X	0	1	1	1	1	0	0	0	1	1	1	1	
8	X	1	0	0	0	0	0	0	0	0	0	0	0	
9	X	1	0	0	1	1	0	0	0	0	1	0	0	
10	X	1	0	1	0	1	1	0	0	0	1	0	0	
11	X	1	0	1	1	1	1	1	0	0	0	0	0	
12	X	1	1	0	0	1	0	1	1	0	0	0	0	
13	X	1	1	0	1	1	1	0	0	0	0	1	0	
14	X	1	1	1	0	1	0	1	1	0	0	0	0	
15	X	1	1	1	1	1	0	1	1	1	0	0	0	
BI	X	X	X	X	X	0	1	1	1	1	1	1	1	
RBI	0	0	0	0	0	0	1	1	1	1	1	1	1	

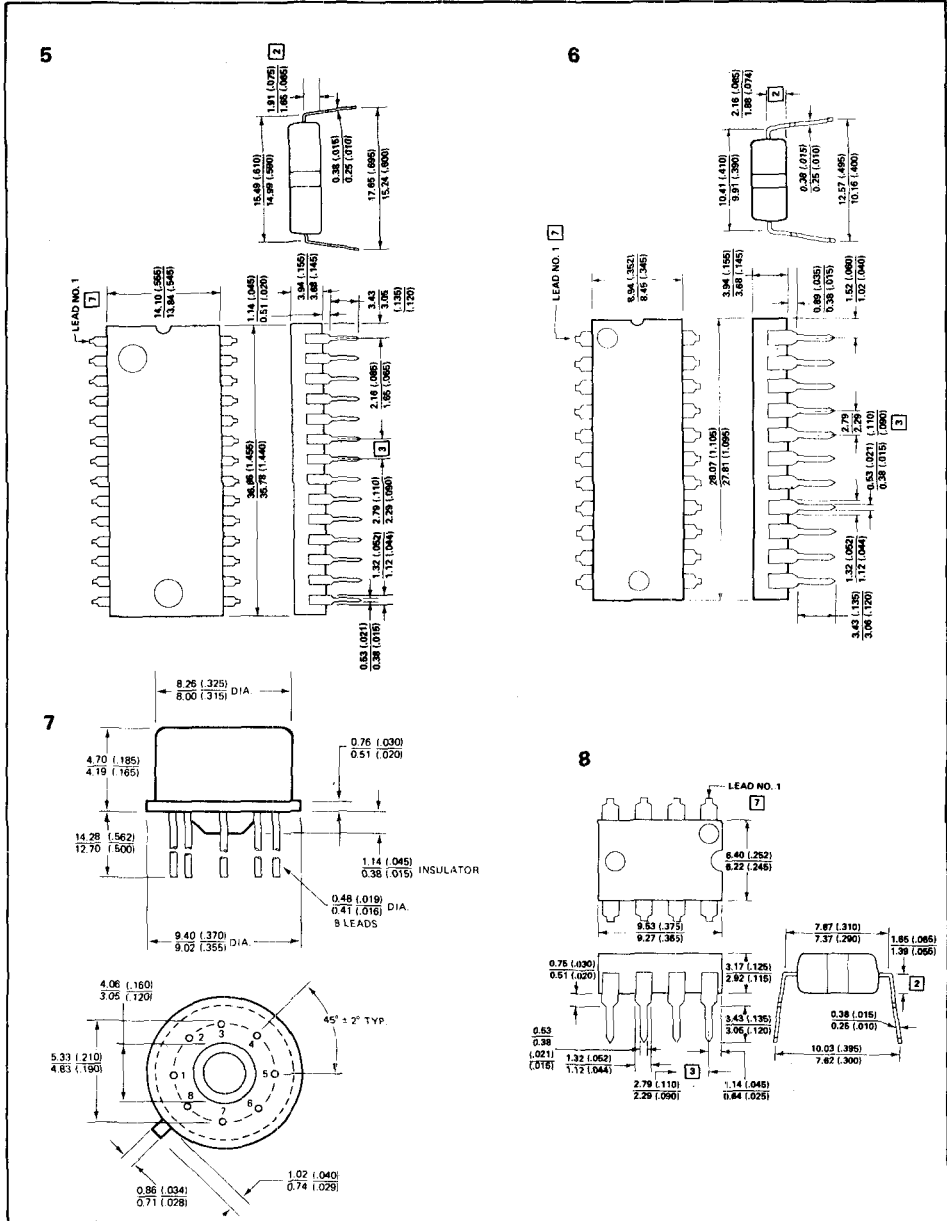
**GEMINI**

FOR CURRENT PRICES PHONE  
HARLOW (0279) 29644



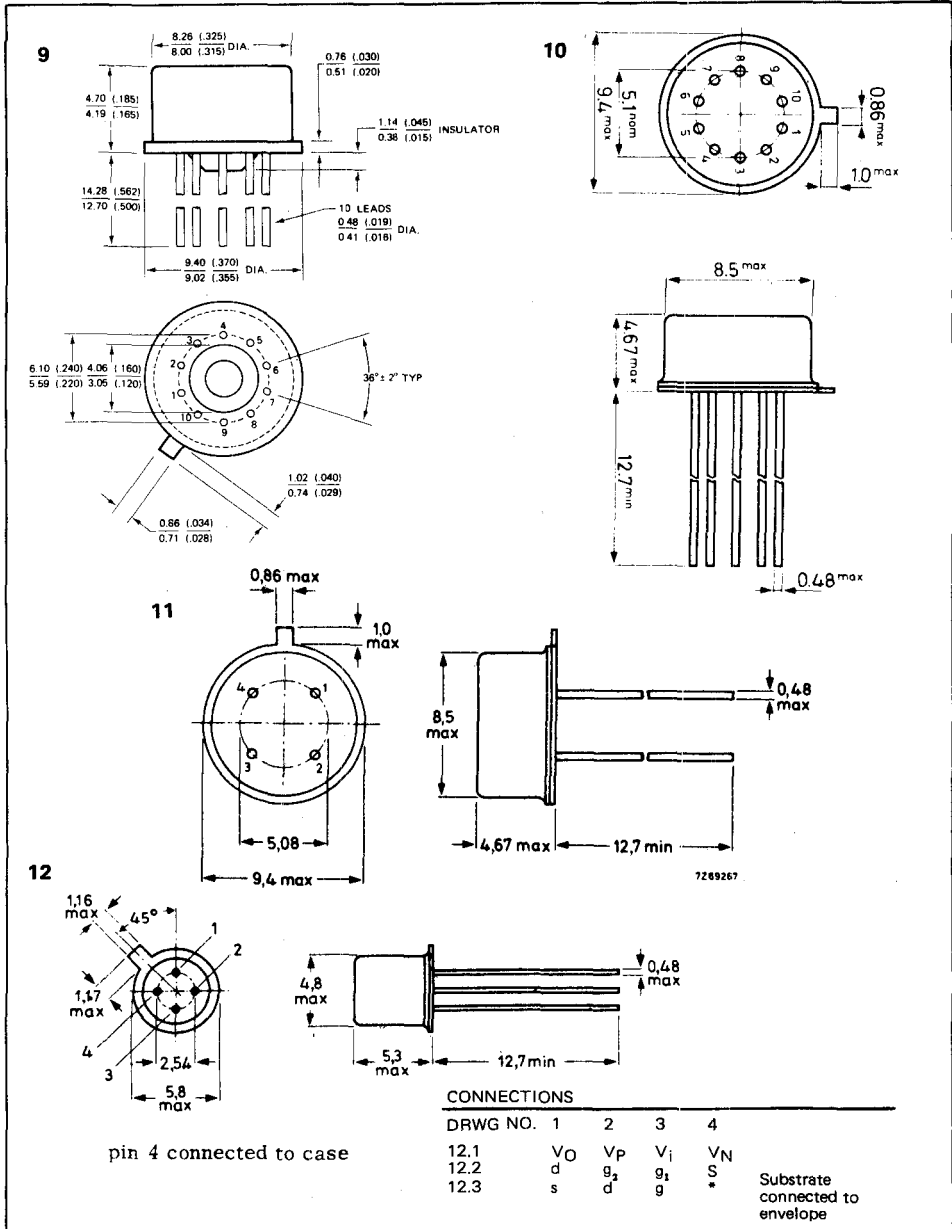
# Signetics

## Outline Drawings



**GEMINI**

FOR CURRENT PRICES PHONE  
HARLOW (0279) 29644

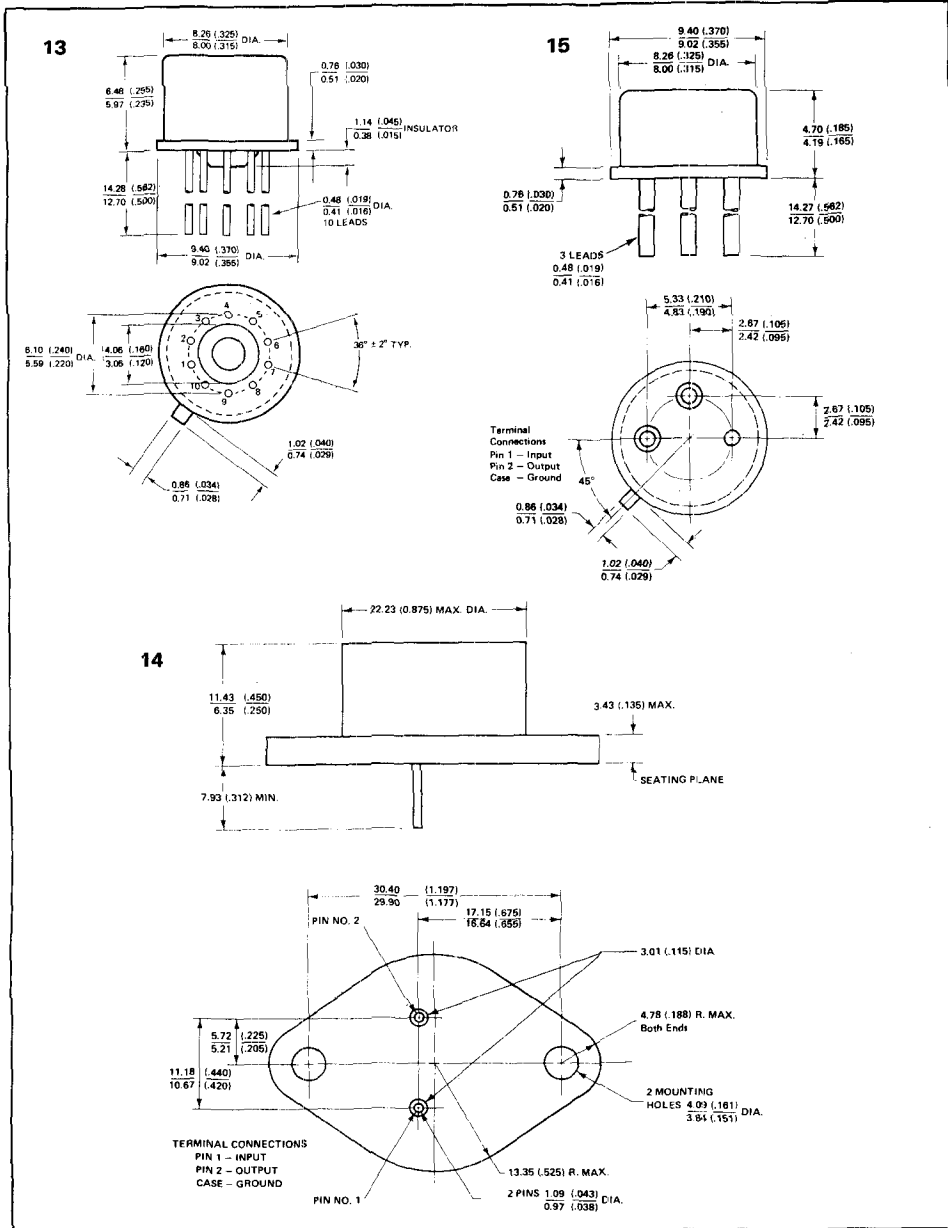


PLEASE QUOTE STOCK NO.  
AND MANUFACTURERS PART NO. WHEN ORDERING

**ITT GEMINI**

# Signetics

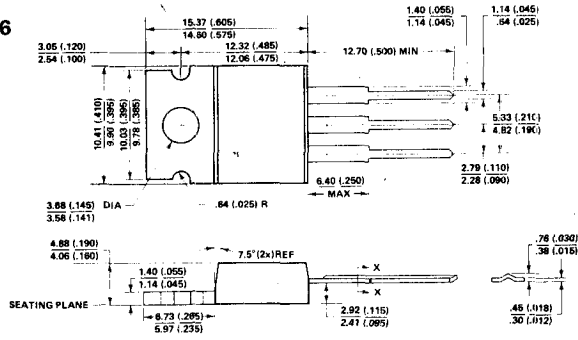
## Outline Drawings



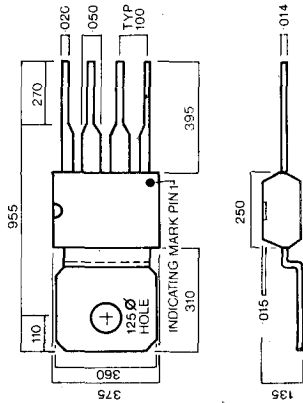
**ITT GEMINI**

FOR CURRENT PRICES PHONE  
HARLOW (0279) 29644

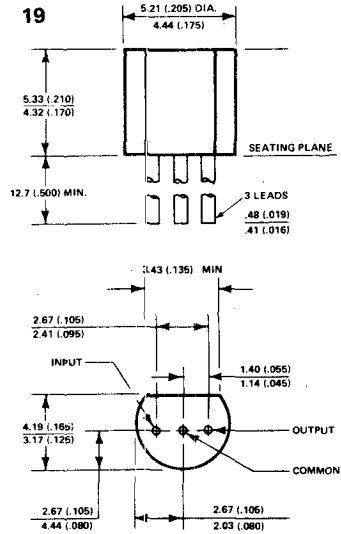
16



17



19



PLEASE QUOTE STOCK NO.  
AND MANUFACTURER PART NO. WHEN ORDERING

**TTT GEMINI**

