

Babcock's 6-Digit, 7-segment, Gas-Plasma Display is designed for coin-op pinball games. The flat display has a wide viewing angle and a bright neon-orange output and is easily read at distances up to 35 feet (10 meters). Legibility is assured by the 0.7-inch- high numbers, and bright, 210 fL (720 cd/m<sup>2</sup>) output. The display has an attached, hermetically sealed, lead system for added protection in humid environments.

In most applications, this part is a direct substitute for any of the following industry standard models:

**CROSS REFERENCE GUIDE**

BECKMAN	CHERRY	DISPLAY'S INC
SP-491/SP-492	W06-1W70	AR06701

**FEATURES**

- 0.7 inch (17.8 mm) digit height
- Numeric, 7-segment digits
- 6-digit field width
- Decimal point and comma in six digits positions.
- Superior lead integrity and reliability
- Luminance – 210 fL (720 cd/m<sup>2</sup>) at 1/7 duty cycle

**SPECIFICATIONS***Absolute Maximum Ratings*

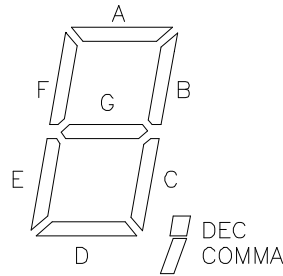
PARAMETER	MIN	MAX	UNITS
Voltage Differential between any to cathode terminals		125	V(dc)
Current (Duty Cycle = 1/16)		5.0	mA
Storage Temperature	-40	+85	°C
Operating Temperature	-10	70	°C

*Recommended Operating Conditions*

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Anode Supply Voltage	Vbb	170	180	210	V(dc)
Anode Voltage Swing			60		V(dc)
Anode to Cathode Voltage Drop at I <sub>k</sub> (TYP)	V <sub>op</sub>		145		V(dc)
Current, "b" segment (Duty Cycle = 1/7)	I <sub>k</sub>	3.0	3.4	3.8	mA
Current, "b" segment (Duty Cycle = 1/12)	I <sub>k</sub>		3.8		mA
Current, "b" segment (Duty Cycle = 1/16)(1)	I <sub>k</sub>		4.1		mA
Current, Keep-alive (2)	I <sub>ka</sub>	25	50	100	μA
Anode on-time			500		μs
Interdigit Blanking (Duty Cycle = 1/7)			50		μs
Refresh Period			10	16	ms
Initial Ionization Time				5	Sec

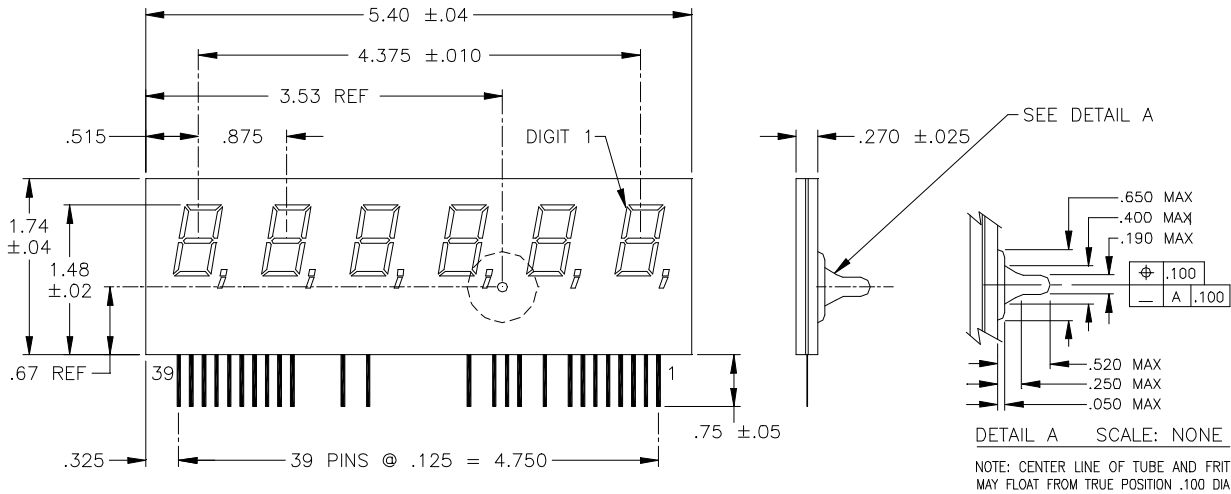
- (1) Typical Luminance is 100 fL at 1/16 duty cycle.
- (2) Use of the Keep-alive cathode is recommended for multiplexed operation.
- (3) Accept for decimal point and comma, all segment currents are equal. Set the decimal and comma currents to 0.27 and 0.40 times the segment current respectively.

SPECIFICATIONS ARE FOR REFERENCE ONLY



**Terminal/Assignments**

Terminal No.	Segment/Function	Terminal No.	Segment/Function
1	a	21-23	N/C
2,4	Anode-1	24, 26	Anode-4
3	b	25	N/C
5	c	27-29	N/C
6	K.A. Anode (R)	30,32	Anode-5
7	K.A. Cathode (R)	31	K.A. Cathode (L)
8, 12	Anode 2	33	d
9	N/C	34	K.A. Anode (L)
10	Dec. Pt.	35	e
11	N/C	36,38	Anode-6
13	Comma	37	g
14, 16	Anode 3	39	f
17-20	N/C		



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