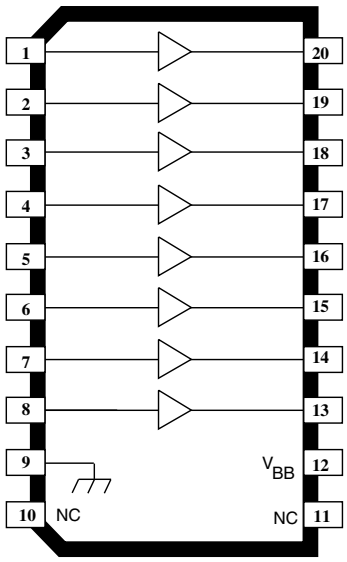
6118

Data Sheet
29313D*

VACUUM FLUORESCENT DISPLAY DRIVER

A6118SLW



Dwg. PP-064-3

ABSOLUTE MAXIMUM RATINGS
at T_A= +25°C

Supply Voltage, V_{BB} . . . . . **85 V**
Input Voltage, V_{IN} . . . . . **20 V**
Output Current, I_{OUT} . . . . . **-40 mA**
Allowable Package Power Dissipation,
P_D . . . . . **See Graph**
Operating Temperature Range,
T_A . . . . . **-20°C to +85°C**
Storage Temperature Range,
T_S . . . . . **-55°C to +150°C**

Caution: The high input impedance of these devices makes them susceptible to static discharge damage associated with handling and testing. Techniques similar to those used for handling MOS devices should be employed.

Consisting of eight npn Darlington output stages and the associated common-emitter input stages, these drivers are designed to interface between low-level digital logic and vacuum fluorescent displays. Both devices are capable of driving the digits and/or segments of these displays and are designed to permit all outputs to be activated simultaneously. Pull-down resistors are incorporated into each output and no external components are required for most fluorescent display applications.

With any device, the output load is activated when the input is pulled towards the positive supply (active 'high'). The UDN6118A is furnished in a standard 18-pin plastic DIP; the A6118SLW is in a 20-lead wide-body SOIC. Both units operate over the temperature range of -20°C to +85°C. These devices are also available for operation over the temperature range of -40°C to +85°C by changing the part number to UDQ6118A or A6118ELW.

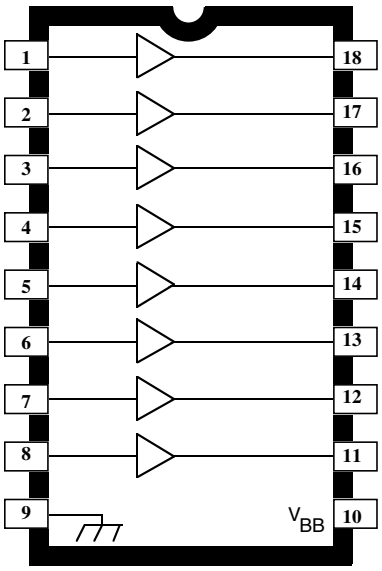
FEATURES

- Digit or Segment Drivers
- Low Input Current
- Integral Output Pull-Down Resistors
- High Output Breakdown Voltage
- Single or Split Supply Operation
- Automotive Capable

Always order by complete part number, e.g., **UDN6118A**.

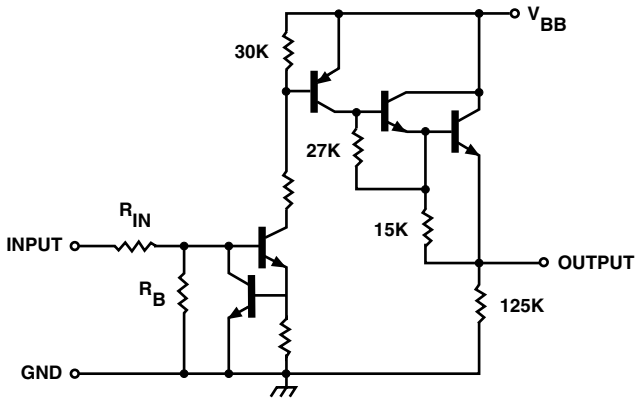
6118
VACUUM FLUORESCENT DISPLAY DRIVER

UDN6118A



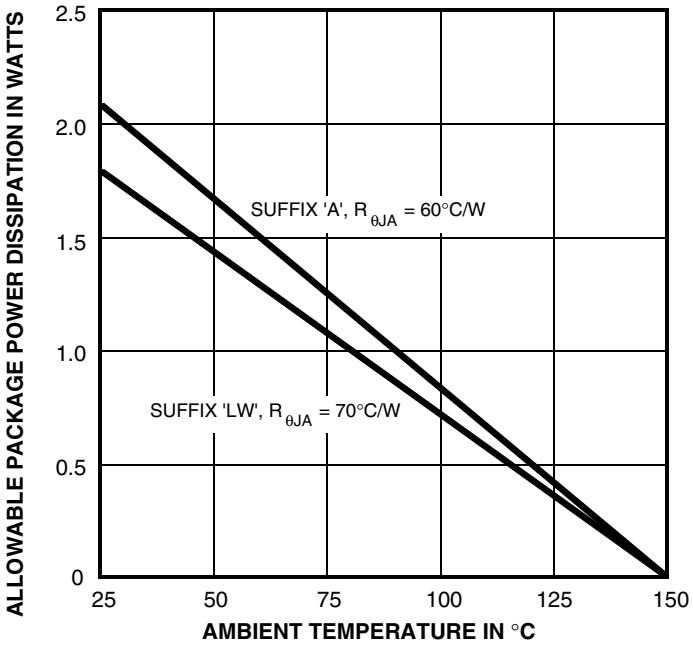
Dwg. PP-065

PARTIAL SCHEMATIC
ONE DRIVER (ALL TYPES)



Dwg. No. A-10,592C

R_{IN}	R_B
10 kΩ	30 kΩ



Dwg. GS-009-1

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ELECTRICAL CHARACTERISTICS (over operating temperature range) at V_{BB} = 80 V.

Characteristic	Symbol	Test Conditions	Limits			
			Min.	Typ.	Max.	Units
Output Leakage Current	I_{OUT}	V_{IN} = 0.4 V	—	—	15	µA
Output OFF Voltage	V_{OUT}	V_{IN} = 0.4 V	—	—	1.0	V
Output Pull-Down Current	I_{OUT}	Input Open, $V_{OUT} = V_{BB}$	450	650	1100	µA
Output ON Voltage	V_{OUT}	V_{IN} = 2.4 V, I_{OUT} = -25 mA	77	78	—	V
Input ON Current	I_{IN}	V_{IN} = 2.4 V	—	120	225	µA
		V_{IN} = 5.0 V	—	375	650	µA
Supply Current	I_{BB}	All Inputs Open	—	10	100	µA
		All Inputs = 2.4 V	—	6.0	9.0	mA

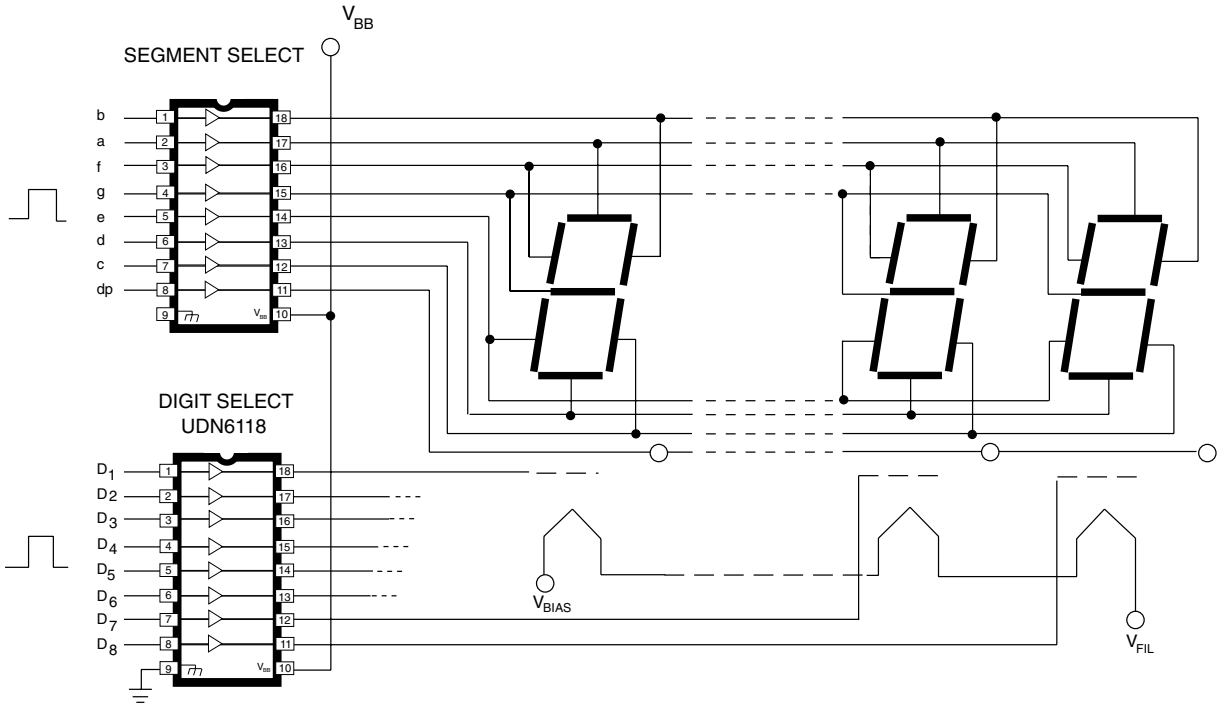
RECOMMENDED OPERATING CONDITIONS

Characteristic	Symbol	Test Conditions	Limits			
			Min.	Typ.	Max.	Units
Supply Voltage	V_{BB}		5.0	—	70	V
Input ON Voltage	V_{IN}		2.4	—	15	V
Output ON Current	I_{OUT}		—	—	-25	mA

NOTE: Positive (negative) current is defined as going into (coming out of) the specified device terminal.

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VACUUM FLUORESCENT DISPLAY DRIVER

TYPICAL MULTIPLEXED FLUORESCENT DISPLAY



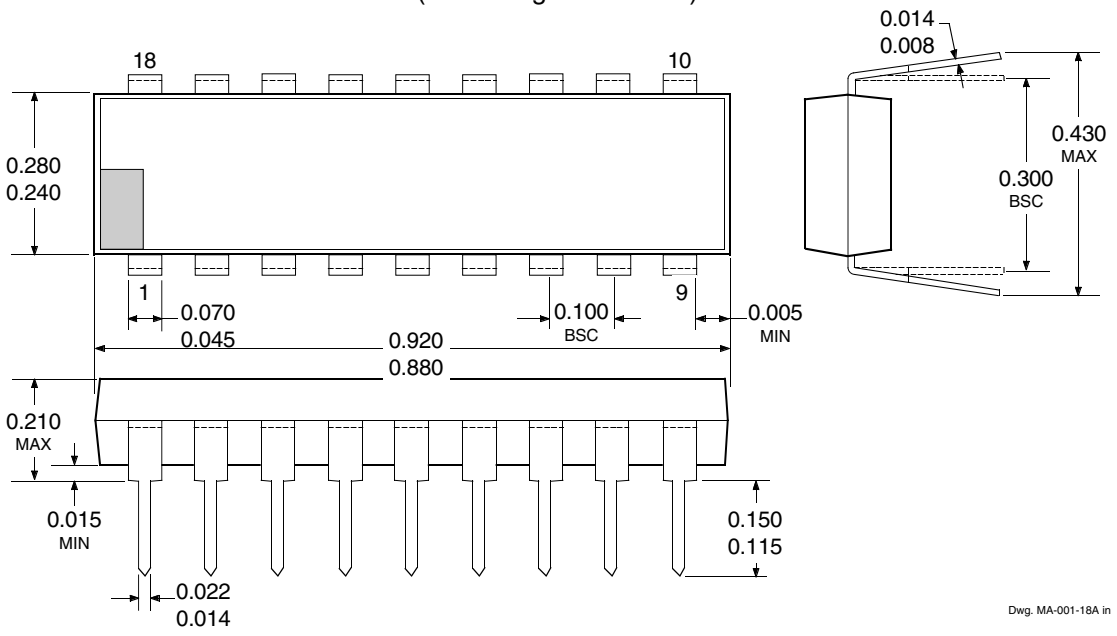
Dwg. No. A-10,261B

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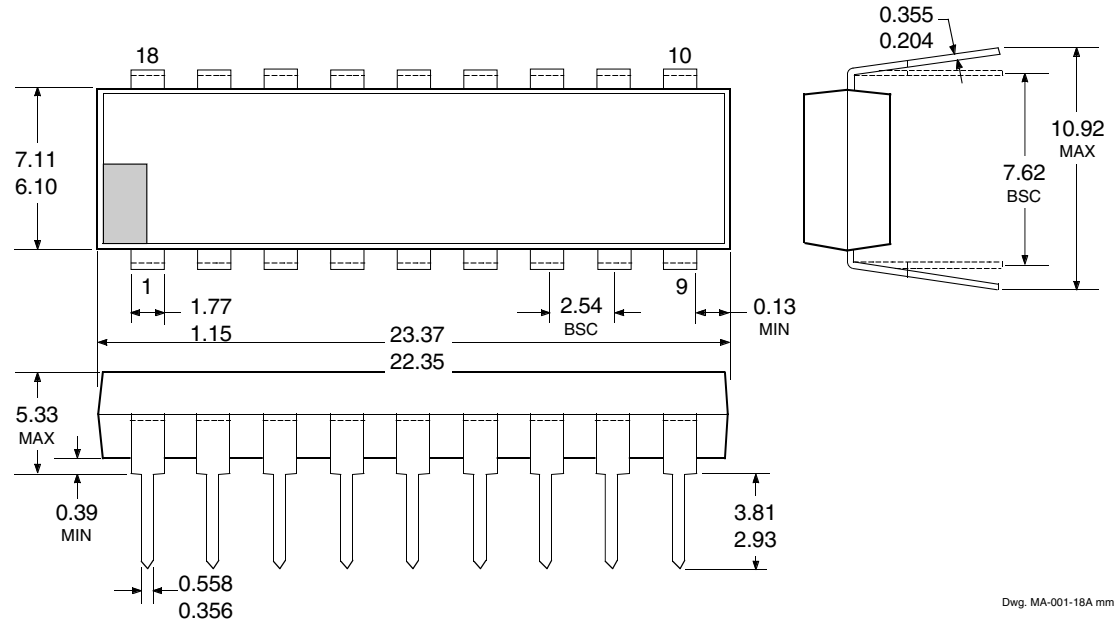
UDN6118A

Dimensions in Inches
(controlling dimensions)



Dwg. MA-001-18A in

Dimensions in Millimeters
(for reference only)



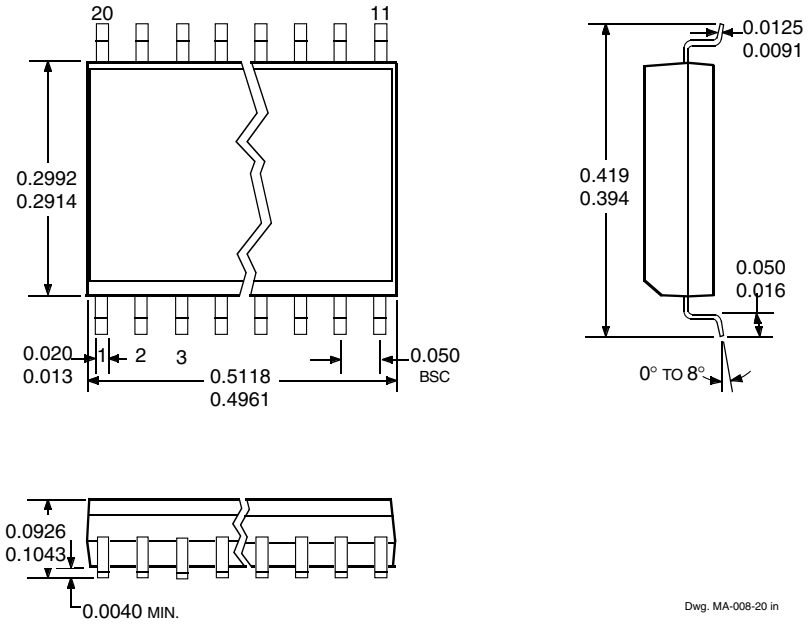
Dwg. MA-001-18A mm

NOTES: 1. Exact body and lead configuration at vendor's option within limits shown.
2. Lead spacing tolerance is non-cumulative.
3. Lead thickness is measured at seating plane or below.
4. Supplied in standard sticks/tubes of 21 devices.

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VACUUM FLUORESCENT DISPLAY DRIVER

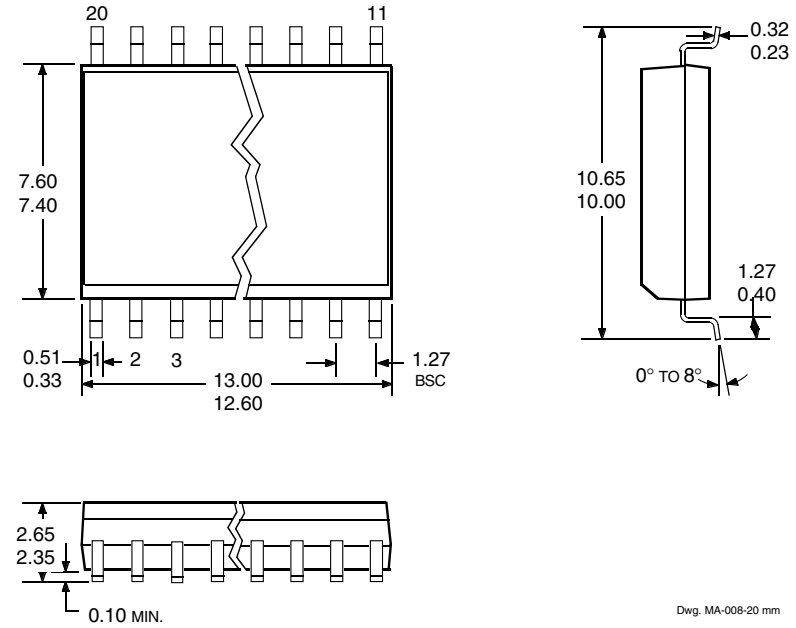
A6118SLW

Dimensions in Inches
(for reference only)



Dwg. MA-008-20 in

Dimensions in Millimeters
(controlling dimensions)



Dwg. MA-008-20 mm

NOTES:1. Exact body and lead configuration at vendor's option within limits shown.
2. Lead spacing tolerance is non-cumulative.
3. Supplied in standard sticks/tubes of 37 devices or add "TR" to part number for tape and reel.

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VACUUM FLUORESCENT DISPLAY DRIVER

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VACUUM FLUORESCENT DISPLAY DRIVER

HIGH-VOLTAGE (≥60 V) PERIPHERAL POWER AND DISPLAY DRIVERS

IN ORDER OF 1) OUTPUT VOLTAGE, 2) OUTPUT CURRENT, 3) NUMBER OF DRIVERS

Output Ratings*			Features					
V	mA	#	Serial Input	Latched Drivers	Diode Clamp	Saturated Outputs	Internal Protection	Part Number †
60	-25	8	–	X	–	–	–	5815
	-25	10	X	X	Active Pull-Down	–	–	5810-F and 6809/10
	-25	12	X	X	Active Pull-Down	–	–	5811 and 6811
	-25	20	X	X	Active Pull-Down	–	–	5812-F and 6812
	-25	32	X	X	Active Pull-Down	–	–	5818-F and 6818
	300	4	–	–	X	X	X	2557
	600	4	–	–	–	X	X	2547
	600	4	–	–	X	X	X	2549
	700	4	–	–	X	X	X	2559
	700	4	–	–	X	X	X	2543
	4000	4	–	–	X	–	–	2944
80	-350	8	–	–	X	–	–	2983 and 2984
	350	8	X	X	–	–	–	5822
	350	8	X	X	X	–	–	5842
	-350	8	X	X	X	–	–	5890
	1500	4	–	–	–	–	–	2065 and 2069
	4000	4	–	–	X	–	–	2879
85	-25	8	–	–	–	–	–	6118
95	300	7	–	–	X	–	–	2023
	300	8	–	–	X	–	–	2823
	350	7	–	–	X	–	–	2024
	350	8	–	–	X	–	–	2824
135	250	7	–	–	X	–	–	7003

* Current is maximum test condition; voltage is absolute maximum allowable.
Negative current is defined as coming out of (sourcing) the output.

† Complete part number includes additional characters to indicate operating temperature range and package style.

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