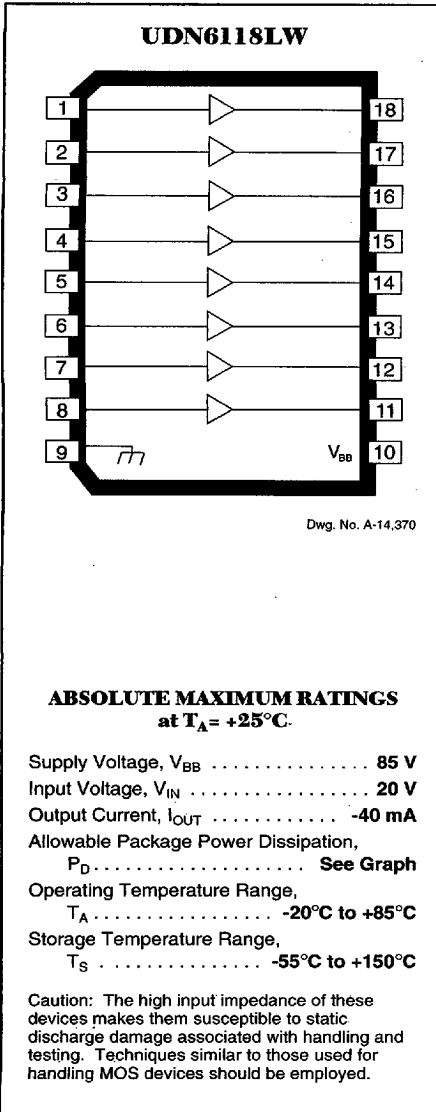


## FLUORESCENT DISPLAY DRIVERS



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. All 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'). All units operate over the temperature range of  $-20^\circ\text{C}$  to  $+85^\circ\text{C}$ .

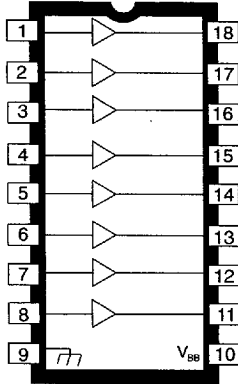
### FEATURES

- 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**.

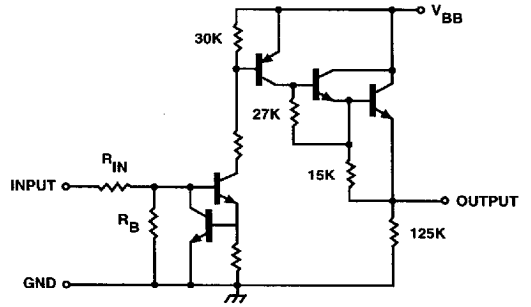
# 6118 FLUORESCENT DISPLAY DRIVERS

## UDN6118A



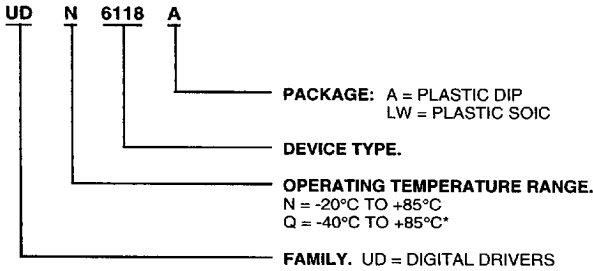
Dwg. No. A-9641A

## PARTIAL SCHEMATIC ONE DRIVER (ALL TYPES)

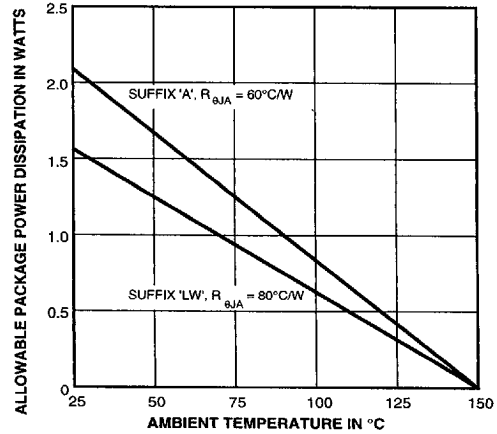


Dwg. No. A-10,592C

$R_{IN}$	$R_B$
10 k $\Omega$	30 k $\Omega$



\* Devices are also available for operation between -40°C and +85°C. To order, change the prefix from 'UDN' to 'UDQ'.



Dwg. No. GP-018B

0504338 0007951 T17

# 6118 FLUORESCENT DISPLAY DRIVERS

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

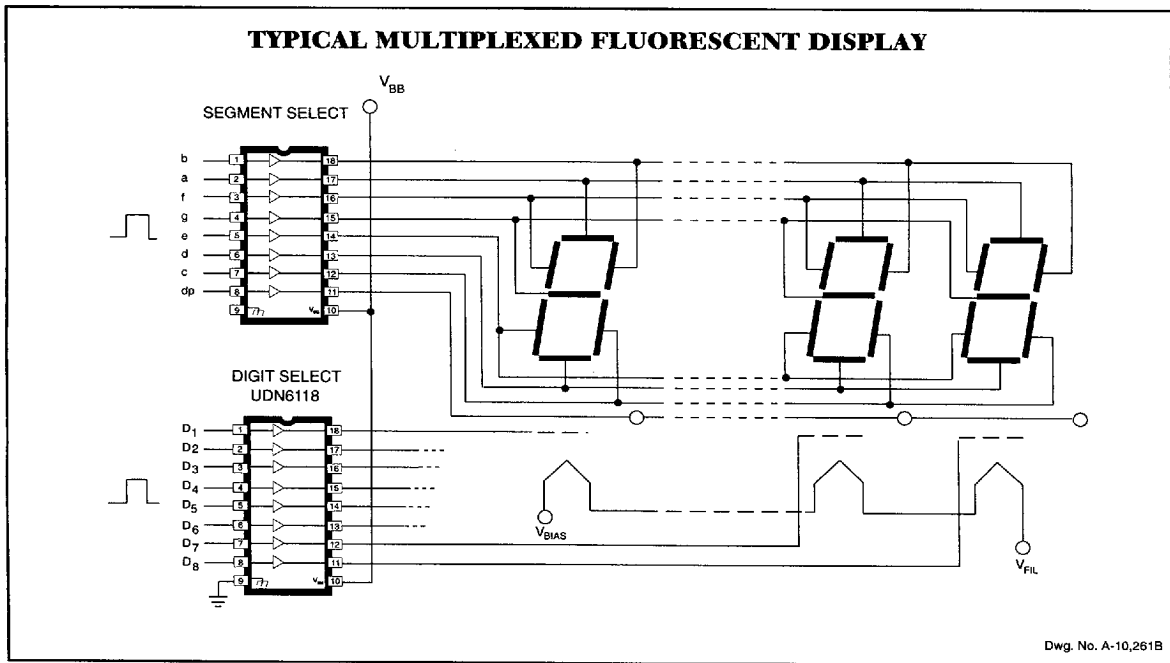
Characteristic	Symbol	Test Conditions	Limits			
			Min.	Typ.	Max.	Units
Output Leakage Current	$I_{OUT}$	$V_{IN} = 0.4\text{ V}$	—	—	15	$\mu\text{A}$
Output OFF Voltage	$V_{OUT}$	$V_{IN} = 0.4\text{ V}$	—	—	1.0	V
Output Pull-Down Current	$I_{OUT}$	Input Open, $V_{OUT} = V_{BB}$	450	650	1100	$\mu\text{A}$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

# 6118 FLUORESCENT DISPLAY DRIVERS

## 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 pin.



0504338 0007953 89T