NEC
ELECTRON DEVICE

TRANSISTOR ARRAY
μPA6118C

HIGH-VOLTAGE FLUORESCENT INDICATOR PANEL DRIVER
SILICON EPITAXIAL TRANSISTOR ARRAY

DESCRIPTION

The μPA6118C is a monolithic array of eight independent NPN darlington output stages with a common bias supply.
This device is especially suited for driving FIP (Fluorescent Indicator Panel).
The output load is activated when the input is pulled high, so that it is easy to design logic circuits of a microcomputer, etc.

FEATURES

- High Voltage rating. V_{CC}: 85 V
- Output pull down resistors incorporated.
- Base current limiting resistors incorporated.
- Non-inverting type (Input: High → Output: High).
- Package is 18 pin plastic DIP (Dual In-Line Package).

ABSOLUTE MAXIMUM RATINGS

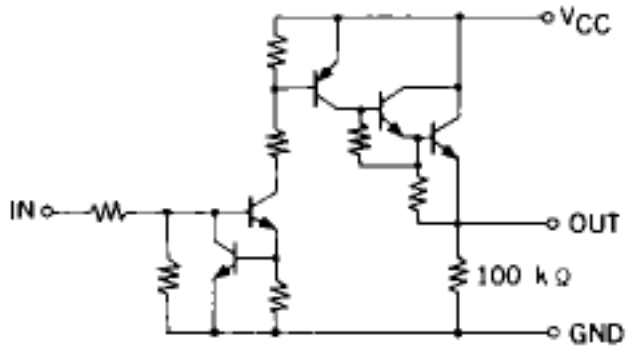
Maximum Voltages and Current (T_a = 25 °C)			
Supply Voltage	V_{CC}	85	V
Output Voltage	V_O	85	V
Input Voltage	V_I	20	V
Output Current	I_O	40	mA/unit
Maximum Power Dissipation			
Package Dissipation	P_T	1.4	W
Maximum Temperature			
Storage Temperature	T_{stg}	−55 to +150	°C
Operating Junction Temperature	$T_{j(opt)}$	+150	°C

ELECTRICAL CHARACTERISTICS (T_a = 25 °C)

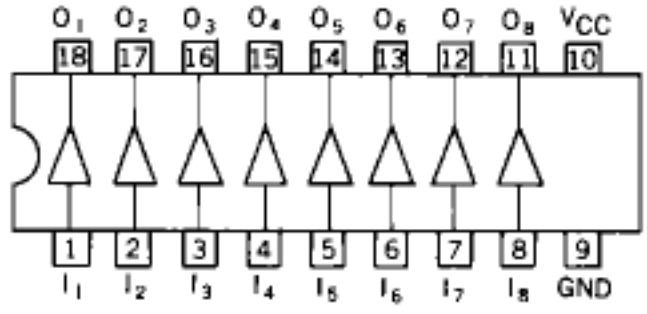
CHARACTERISTIC	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
Output Leakage Current	I_L			15	μA	V_{CC} = 80 V, V_I = 0.4 V
Output OFF Voltage	V_{OFF}			1.0	V	V_{CC} = 80 V, V_I = 0.4 V
Output Pull Down Current	I_P	−560		−1370	μA	V_{CC} = V_O = 80 V, Input Open
Output ON Voltage	V_{ON}	77			V	V_{CC} = 80 V, V_I = 2.4 V, I_O = 25 mA
Input ON Current	I_I			225	μA	V_{CC} = 80 V, V_I = 2.4 V
				650	μA	V_{CC} = 80 V, V_I = 5.0 V
Supply Current	I_{CC}			100	μA	V_{CC} = 80 V, All Inputs Open
				11	mA	V_{CC} = 80 V, All Inputs = 2.4 V

NEC cannot assume any responsibility for any circuits shown or represent that they are free from patent infringement.

EQUIVALENT CIRCUIT (1 Unit)

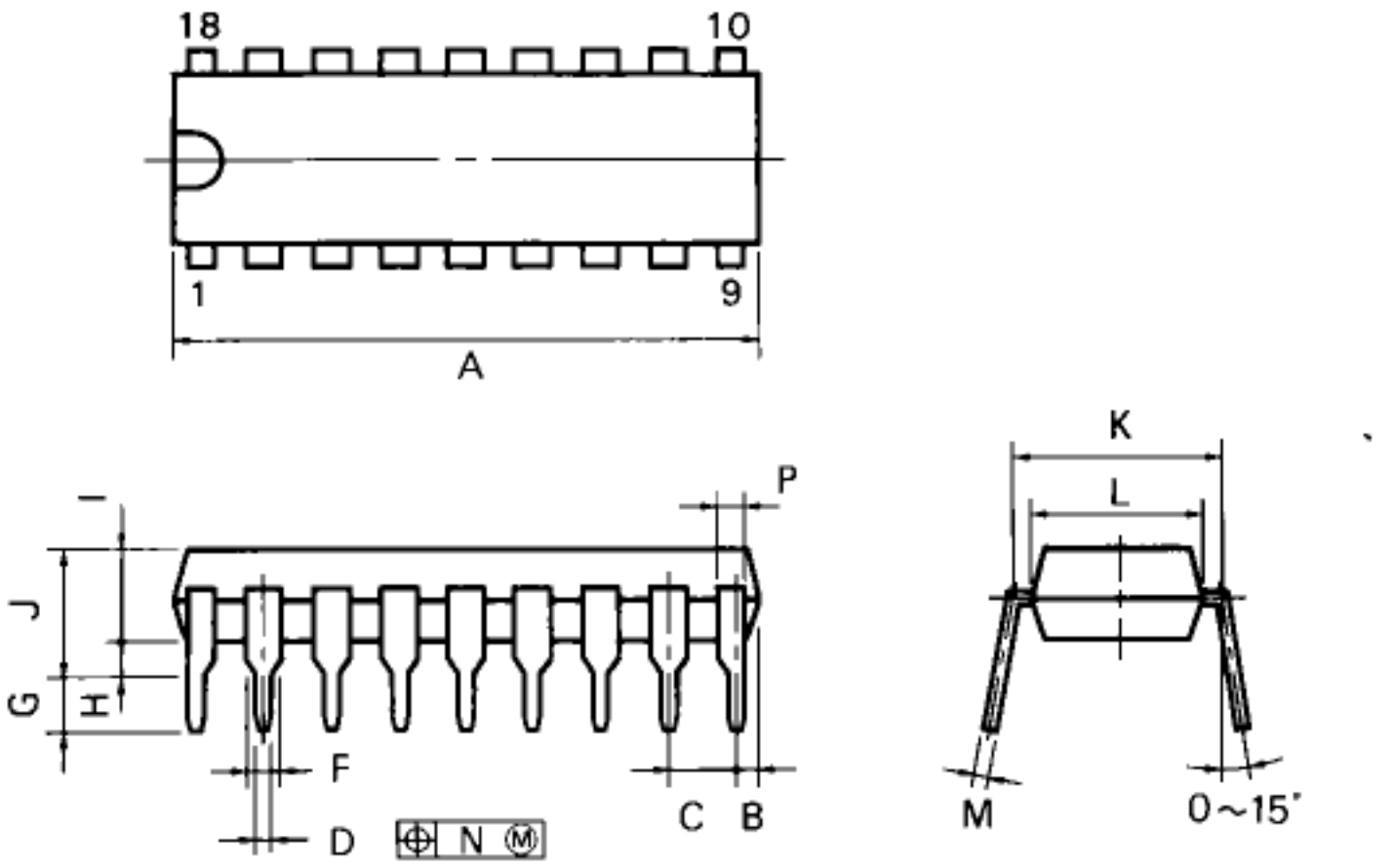


CONNECTION DIAGRAM (Top View)



I : Input O : Output V_{CC} : Supply Voltage

18PIN PLASTIC DIP (300 mil)



P18C-100-300B

NOTES

1) Each lead centerline is located within 0.25 mm (0.01 inch) of its true position (T.P.) at maximum material condition.

2) Item "K" to center of leads when formed parallel.

ITEM	MILLIMETERS	INCHES
A	22.86 MAX.	0.900 MAX.
B	1.27 MAX.	0.050 MAX.
C	2.54 (T.P.)	0.100 (T.P.)
D	$0.50^{+0.10}_{-0.10}$	$0.020^{+0.004}_{-0.005}$
F	1.2 MIN.	0.047 MIN.
G	$3.2^{+0.3}_{-0.3}$	$0.126^{+0.012}_{-0.012}$
H	0.51 MIN.	0.020 MIN.
I	4.31 MAX.	0.170 MAX.
J	5.08 MAX.	0.200 MAX.
K	7.62 (T.P.)	0.300 (T.P.)
L	6.4	0.252
M	$0.25^{+0.10}_{-0.05}$	$0.010^{+0.004}_{-0.003}$
N	0.25	0.01
P	1.0 MIN.	0.039 MIN.