

To our customers,

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## Old Company Name in Catalogs and Other Documents

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On April 1<sup>st</sup>, 2010, NEC Electronics Corporation merged with Renesas Technology Corporation, and Renesas Electronics Corporation took over all the business of both companies. Therefore, although the old company name remains in this document, it is a valid Renesas Electronics document. We appreciate your understanding.

Renesas Electronics website: <http://www.renesas.com>

April 1<sup>st</sup>, 2010  
Renesas Electronics Corporation

Issued by: Renesas Electronics Corporation (<http://www.renesas.com>)

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TRANSISTOR ARRAY

**Phase-out/Discontinued**


## HIGH-VOLTAGE FLUORESCENT INDICATOR PANEL DRIVER SILICON EPITAXIAL TRANSISTOR ARRAY

### DESCRIPTION

The  $\mu$ PA6118C 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  $\rightarrow$  Output: High).
- Package is 18 pin plastic DIP (Dual In-Line Package).

### ABSOLUTE MAXIMUM RATINGS

Maximum Voltages and Current ( $T_a = 25^\circ\text{C}$ )

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
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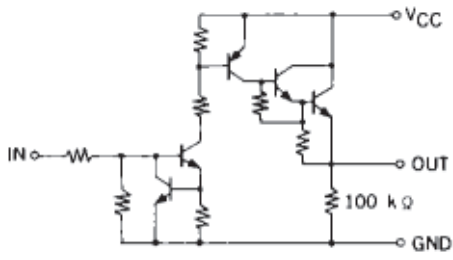
Maximum Temperature

Storage Temperature	$T_{stg}$	-55 to +150	$^\circ\text{C}$
Operating Junction Temperature	$T_{j(opt)}$	+150	$^\circ\text{C}$

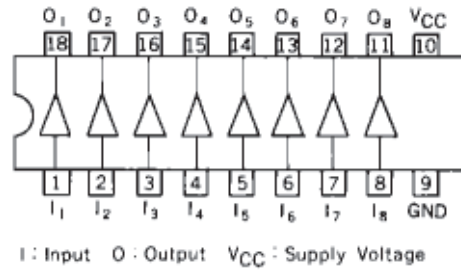
### ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ\text{C}$ )

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

EQUIVALENT CIRCUIT (1 Unit)

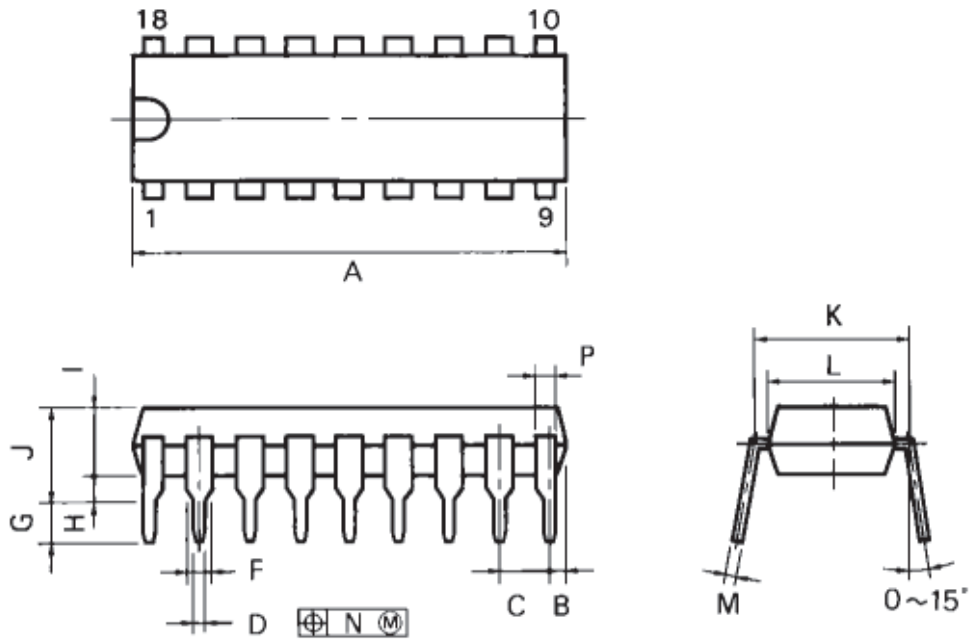


CONNECTION DIAGRAM (Top View)



**Phase-out/Discontinued**

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 <sup>0.10</sup>	0.020 <sup>0.004</sup>
F	1.2 MIN.	0.047 MIN.
G	3.2 <sup>0.3</sup>	0.126 <sup>0.012</sup>
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 <sup>0.10</sup> <sub>0.08</sub>	0.010 <sup>0.004</sup> <sub>0.003</sub>
N	0.25	0.01
P	1.0 MIN.	0.039 MIN.

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## NEC Corporation

INTERNATIONAL ELECTRON DEVICES DIV.  
SUMITOMO MITA Building, 37-8,  
Shiba Gochome, Minato-ku, Tokyo 108, Japan  
Tel: Tokyo 456-3111  
Telex Address: NECTOK J22686  
Cable Address: NEC TOKYO

IN-1658  
MAY-20-85M  
Printed in Japan