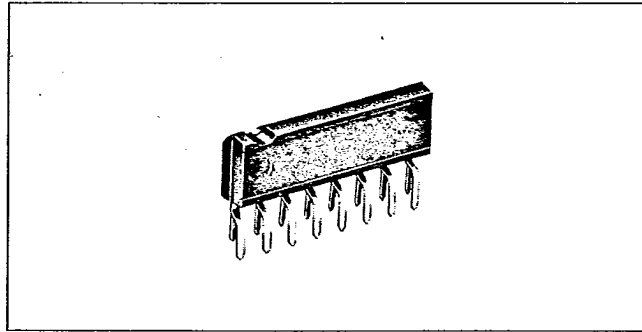


Fluorescent Display Driver BA6139

ROHM

T-52-13-09



The BA6139 is a monolithic fluorescent display driver. The device features high maximum and operating voltages of 35 V and 30 V, respectively, and is applicable to various types of fluorescent displays. Coming in a 16-pin LF package, the BA6139 requires minimum board space and increases integration density.

Features

1. High maximum voltage.
2. External resistor gives the user the freedom to choose the desired discharge time constant.
3. Seven channels implemented on a single chip.
4. Available in a 16-pin LF package with the two pin arrays designated separately for inputs and GND, and outputs and V_{CC} . This saves board space and enables easier external connections.

Dimensions (Unit: mm)

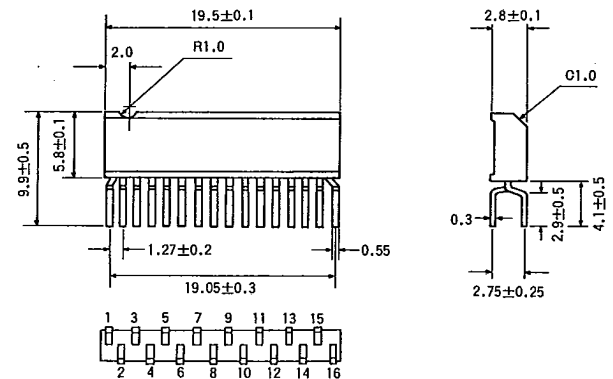


Fig. 1

Pin Connections

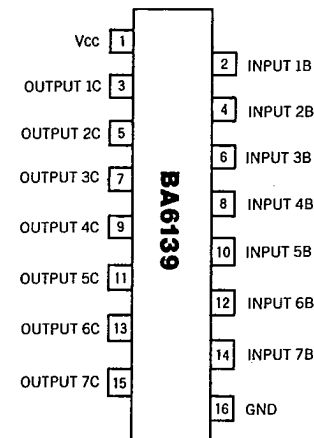


Fig. 2

Absolute Maximum Ratings ($T_a=25^\circ\text{C}$)

Parameter	Symbol	Limits	Unit
Supply voltage	V_{CC}	35	V
Power dissipation	P_d	550*	mW
Operating temperature range	T_{opr}	-20 ~ 60	$^\circ\text{C}$
Storage temperature range	T_{stg}	-55 ~ 125	$^\circ\text{C}$

*Derating is done at 5.5mW/ $^\circ\text{C}$ for operation above $T_a=25^\circ\text{C}$.

Electrical Characteristics (Unless otherwise specified, $T_a=25^\circ\text{C}$, $V_{CC}=24\text{V}$)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions	Test circuit
Supply voltage range	V_{CC}	—	24	30	V	—	Fig. 3
Output high voltage	V_{OH}	22.7	23.0	—	V	$I_{IN} = -250\mu\text{A}$, $R_L = 2.3\text{k}\Omega$ Ch1 ~ 7, SW2 ~ 7-ON	Fig. 3
Output low voltage	V_{OL}	—	—	1.0	V	$I_{IN} = 0\mu\text{A}$, $R_L = 100\text{k}\Omega$ Ch1 ~ 7, SW1 ~ 7-OFF	Fig. 3
Output current	I_{OUT}	10	—	—	mA	$I_{IN} = -250\mu\text{A}$, Ch1 ~ 7	Fig. 3

Drivers

Test Circuit

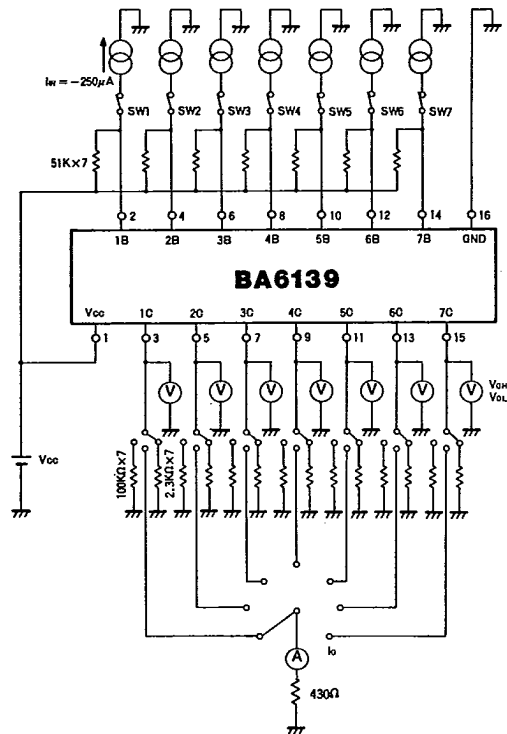


Fig. 3

Application Example

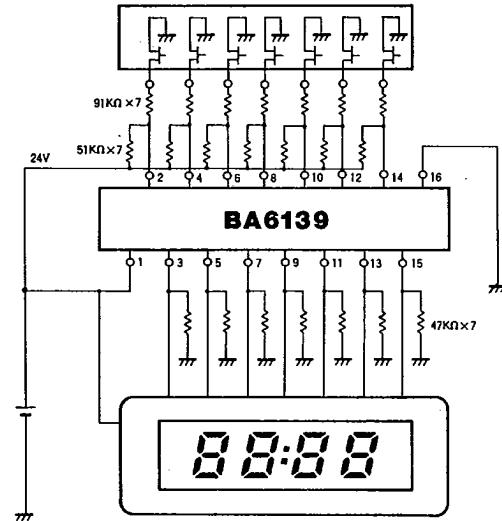


Fig. 4

Circuit Diagram

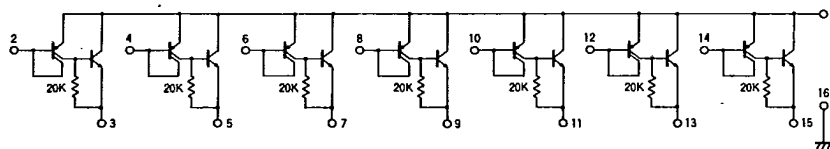


Fig. 5