

# Hex buffer / driver

## BA6267 / BA6267F

The BA6267 and BA6267F can be connected with a high-voltage circuit such as the MOS and can be used to drive high-current circuits such as lamps and relays. It can also be used as a buffer to drive TTL input.

●Applications

Drivers such as lamps and relays

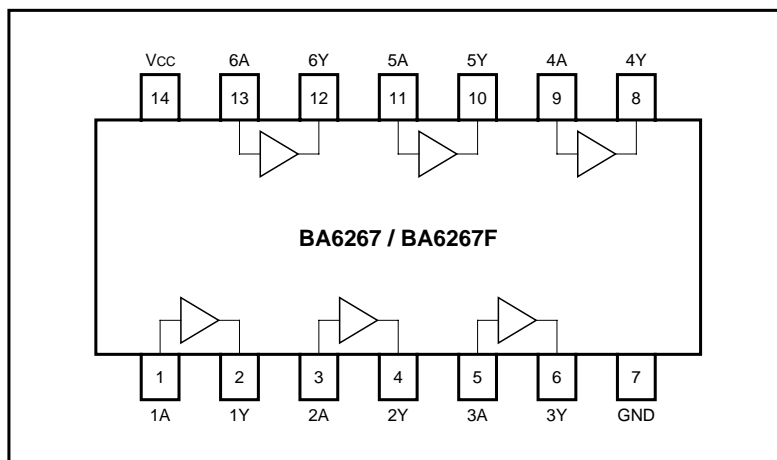
TTL input buffers

●Features

1) The pin layout is compatible with the SN7417.

2) Incorporates 6 circuits

●Block diagram



●Absolute maximum ratings (Ta = 25°C)

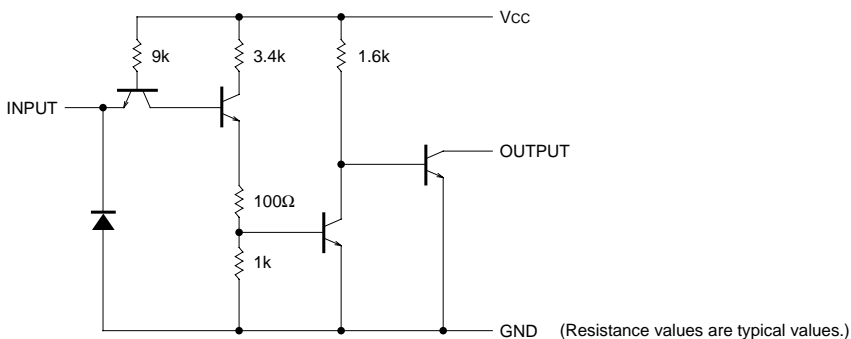
Parameter		Symbol	Limits	Unit
Applied voltage		V <sub>cc</sub>	7.0	V
Power dissipation	BA6267	P <sub>d</sub>	600*1	mW
	BA6267F		550*2	
Operating temperature		T <sub>opr</sub>	0 ~ 70	°C
Storage temperature		T <sub>stg</sub>	- 55 ~ + 125	°C
Input voltage		V <sub>i</sub>	- 0.3 ~ + 5.5	V
Output terminal voltage		V <sub>o</sub>	18	V

\*1 Reduced by 6.0mW for each increase in Ta of 1°C over 25°C.

\*2 Reduced by 5.5mW for each increase in Ta of 1°C over 25°C.

When mounted on a 50mm × 50mm × 1.6mm glass epoxy PCB.

● Input / output circuit



● Recommended operating conditions

Parameter	Symbol	Min.	Typ.	Max.	Unit
Power supply voltage	$V_{CC}$	4.75	5.0	5.25	V
Input high level voltage	$V_{IH}$	2.0	—	—	V
Input low level voltage	$V_{IL}$	—	—	0.8	V
Output voltage	$V_o$	—	—	15	V

● Electrical characteristics (unless otherwise noted,  $T_a = 25^\circ\text{C}$ ,  $V_{CC} = +5.0\text{V}$ )

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Input high level voltage	$V_{IH}$	2	—	—	V	—
Input low level voltage	$V_{IL}$	—	—	0.8	V	—
Input high level current	$I_{IH}$	—	15	40	$\mu\text{A}$	$V_{CC} = 5.25\text{V}$ , $V_{IH} = 2.4\text{V}$
Input low level current	$I_{IL}$	—	-0.33	-1.6	mA	$V_{CC} = 5.25\text{V}$ , $V_{IL} = 0.4\text{V}$
Maximum input current	$I_i$	—	0.02	1	mA	$V_{CC} = 5.25\text{V}$ , $V_i = 5.5\text{V}$
Input clamp voltage	$V_{IK}$	—	-0.9	-1.5	V	$V_{CC} = 4.75\text{V}$ , $I_i = -12\text{mA}$
Output saturation voltage	$V_{OL1}$	—	0.13	0.4	V	$V_{CC} = 4.75\text{V}$ , $I_{OL} = 16\text{mA}$
Output saturation voltage	$V_{OL2}$	—	0.32	0.7	V	$V_{CC} = 4.75\text{V}$ , $I_{OL} = 40\text{mA}$
Output leakage current	$I_{OH}$	—	2	250	$\mu\text{A}$	$V_{CC} = 4.75\text{V}$ , $V_{OH} = 15\text{V}$
Supply current 1	$I_{CCH}$	—	23	41	mA	Total current when all outputs at "H"
Supply current 2	$I_{CCL}$	—	16	30	mA	Total current when all outputs at "L"
Supply current 3	$I_{CC}$	—	3.25	6	mA	Average current per gate when the duty cycle is 50%
Output delay time 1	$t_{PLH}$	—	150	—	ns	$C_L = 15\text{pF}$ , $R_L = 110\Omega$
Output delay time 2	$t_{PHL}$	—	20	—	ns	$C_L = 15\text{pF}$ , $R_L = 110\Omega$

● Measurement conditions

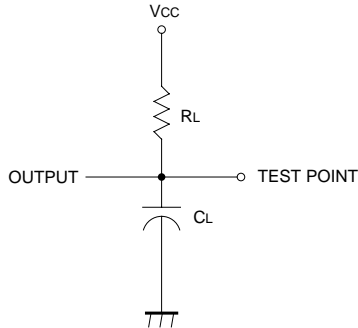


Fig.1 Load circuit

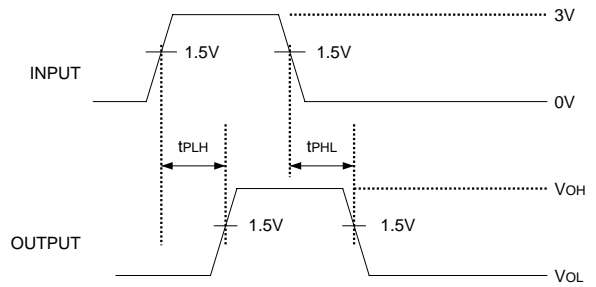


Fig.2 Output delay time

● Electrical characteristic curves

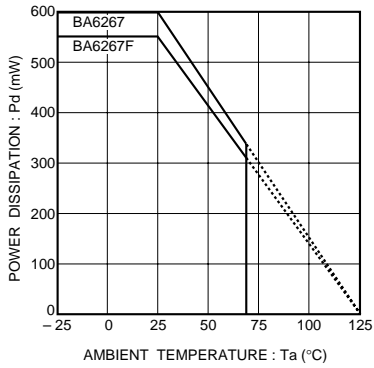


Fig.3 Power dissipation vs. ambient temperature

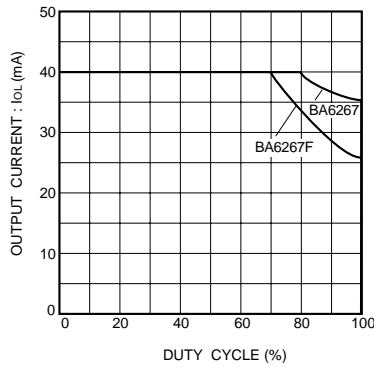


Fig.4 Output conditions

● External dimensions (Units: mm)

