

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

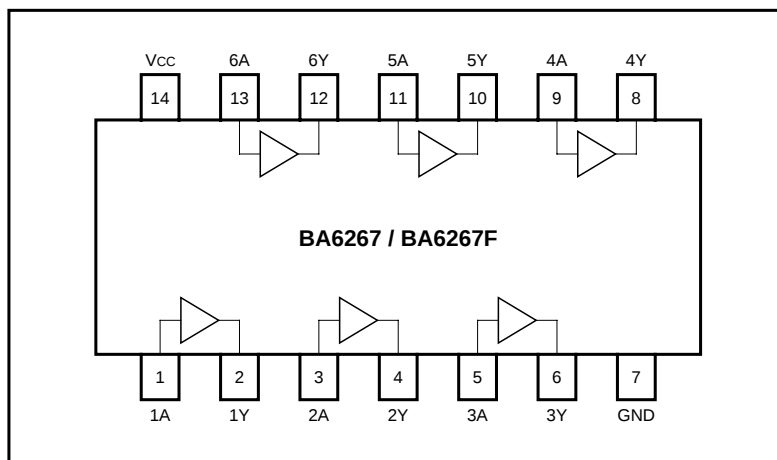
TTL input buffers

●Features

1) The pin layout is compatible with the SN7417.

2) Incorporates 6 circuits

●Block diagram



●Absolute maximum ratings (Ta = 25°C)

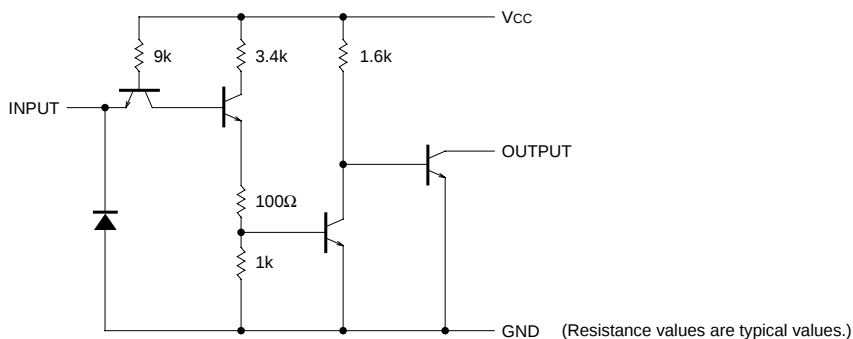
Parameter		Symbol	Limits	Unit
Applied voltage		V _{CC}	7.0	V
Power dissipation	BA6267	Pd	600*1	mW
	BA6267F		550*2	
Operating temperature		T _{opr}	0 ~ 70	°C
Storage temperature		T _{stg}	- 55 ~ + 125	°C
Input voltage		V _i	- 0.3 ~ + 5.5	V
Output terminal voltage		V _o	18	V

*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	μA	$V_{CC} = 5.25\text{V}$, $V_{IH} = 2.4\text{V}$
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	μA	$V_{CC} = 4.75\text{V}$, $V_{OH} = 15\text{V}$
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

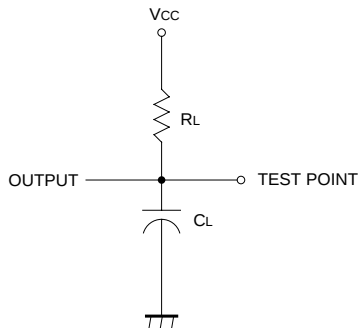


Fig.1 Load circuit

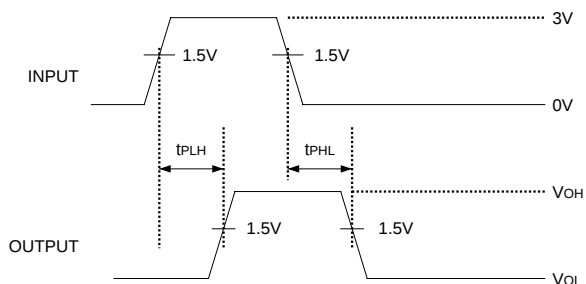


Fig.2 Output delay time

● Electrical characteristic curves

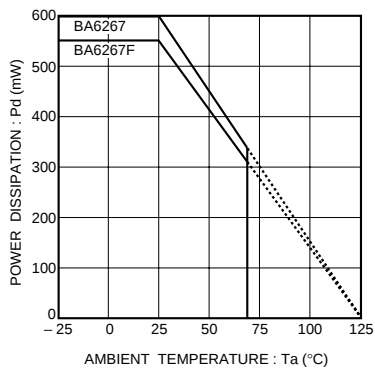


Fig.3 Power dissipation vs. ambient temperature

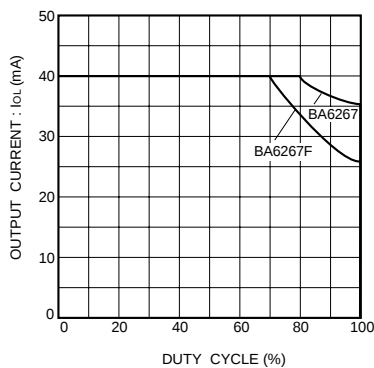
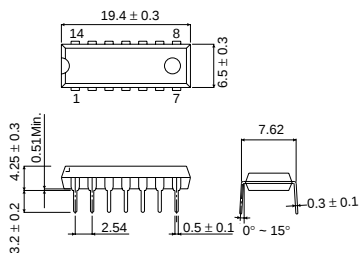


Fig.4 Output conditions

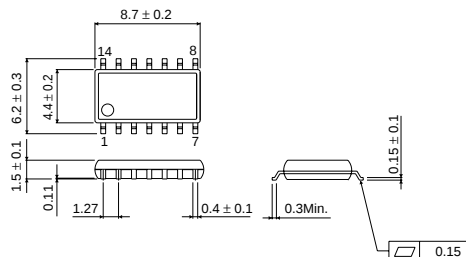
● External dimensions (Units: mm)

BA6267



DIP14

BA6267F



SOP14