



钰地半导体  
Tudi Semiconductor

## Product Specification

TUDI-SN75468/9

Darlington Transistor Arrays

网址 [www.sztdbdt.com](http://www.sztdbdt.com) 🔍

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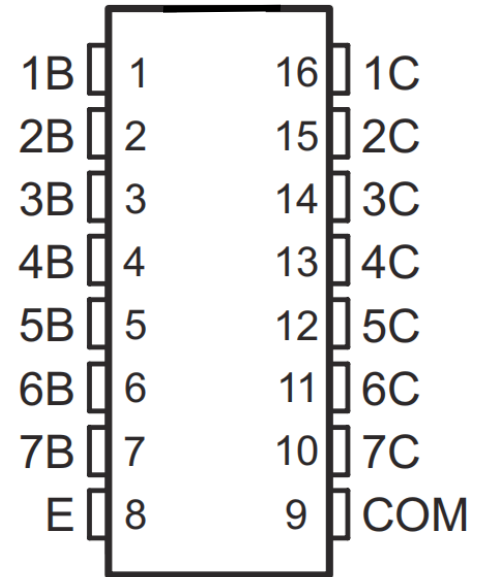


## Features

- Output current (single output):500 mA max
- High sustaining voltage output: 50 V min
- Output clamp diodes
- Inputs compatible with various types of logic

## Description

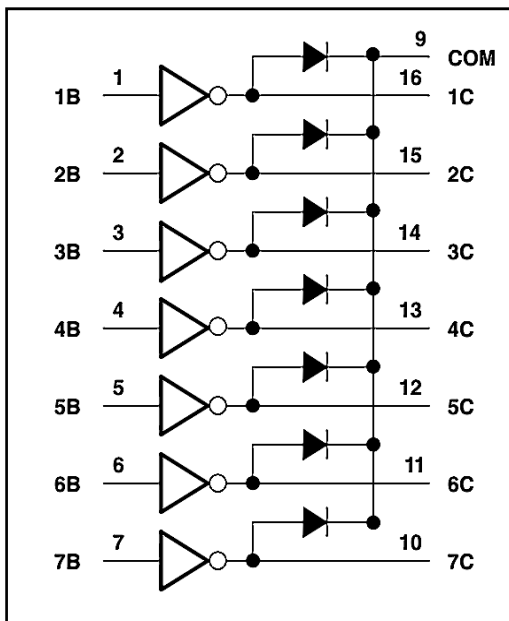
The SN75468/9 Series are high-voltage,high-current darlington drivers comprised of seven NPN darlington pairs. All units feature integral clamp diodes for switching inductive loads.



Pin Diagram

## Applications

- Include relay
- hammer
- lamp
- display (LED) drivers



Simplified block diagram



## Pin description

Pin		I/O(1)	Description
Name	No.		
1B	1	I	Darlington base input
2B	2	I	Darlington base input
3B	3	I	Darlington base input
4B	4	I	Darlington base input
5B	5	I	Darlington base input
6B	6	I	Darlington base input
7B	7	I	Darlington base input
E	8	—	Common emitter shared by all channels (usually connected to ground)
COM	9	—	Flyback diode common cathode node (for inductive load)
7C	10	O	Darlington collector output
6C	11	O	Darlington collector output
5C	12	O	Darlington collector output
4C	13	O	Darlington collector output
3C	14	O	Darlington collector output
2C	15	O	Darlington collector output
1C	16	O	Darlington collector output



## Maximum Ratings (TA= 25 ° C, and rating apply to any one device in the package, unless otherwise noted.)

PARAMETER	TEST CONDITIONS(1)		75468			75469			UNIT
			MIN	TYP	MAX	MIN	TYP	MAX	
VI(on) On-state input voltage	VcE=2V	Ic=125 mA						V	
		Ic=200 mA			2.4				
		Ic=250 mA			2.7				
		Ic=275 mA							
		Ic=300 mA			3				
		Ic=350 mA							
VCE(sat)Collector-emitter saturation voltage	I1=250 μA,IC=100 mA		0.9	1.1		0.9	1.1	V	
	I=350 μA,IC=100 mA		1	1.3		1	1.3		
	I=500 μA,IC=100 mA		1.2	1.6		1.2	1.6		
VF Clamp-diode forward voltage	I=350 mA		1.7	2		1.7	2	V	
IcEx collector cutoff current	VcE=100 V,I=0			50			50	μA	
	VcE=100 V, TA=70°C	I=0		100			100		
		V1=1V					500		
Ikof) Off-state input current	VcE=50 V,Ic=500 μA,TA=70°C		50	65		50	65	μA	
I Input current	V1=3.85V			0.93	1.35			mA	
	V1=5V					0.35	0.5		
	V1=12V					1	1.45		
R Clamp-diode reverse current	VR=100 V				50		50	μA	
	VR=100 V,TA=70°C				100		10		
Ci Input Capacitance	V1=0,f=1 MHz			15	25		15	25	pF

## limit Parameter

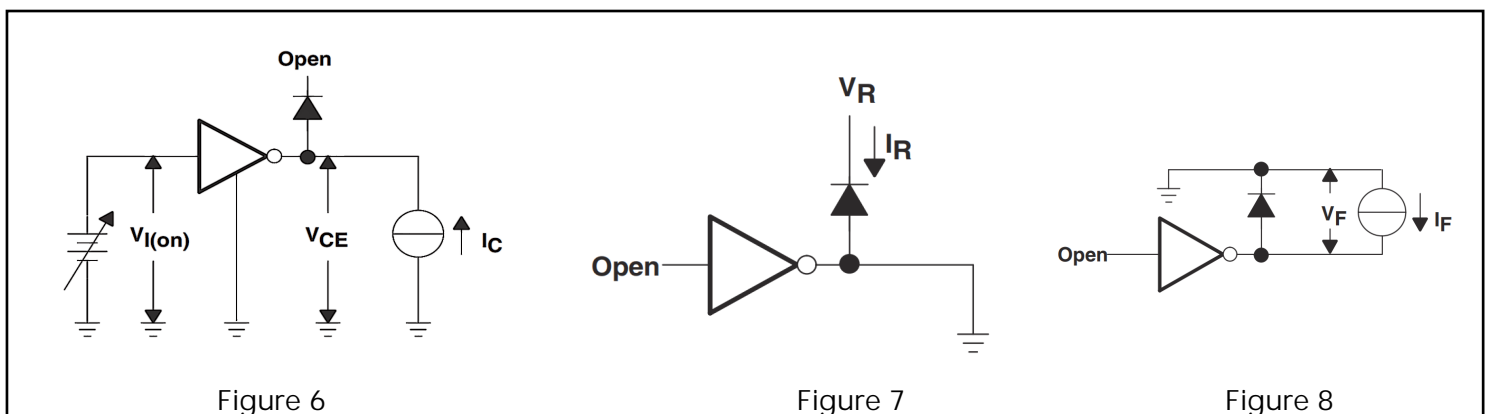
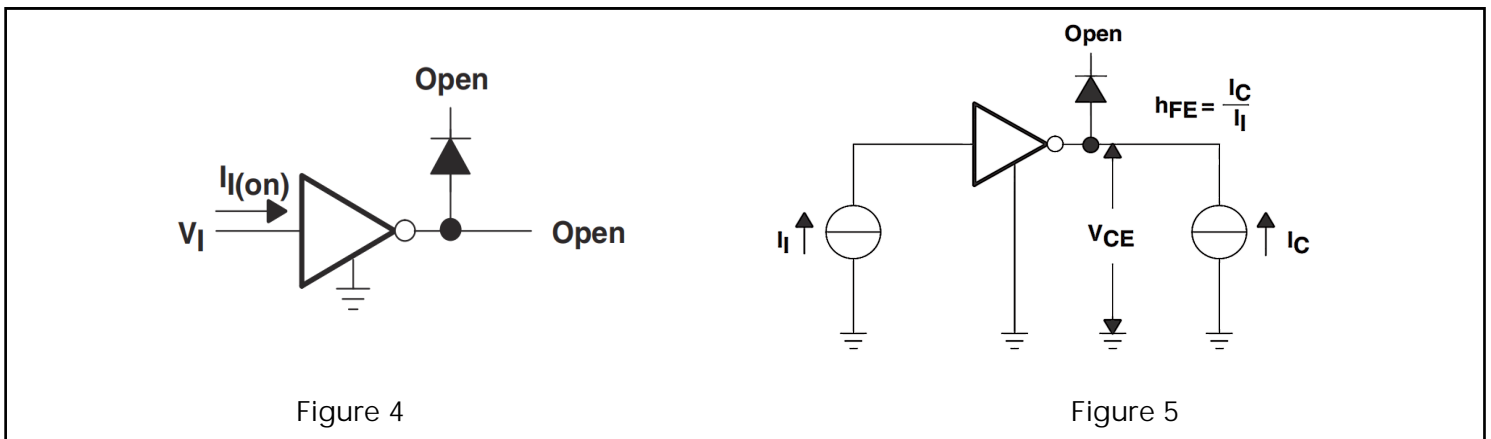
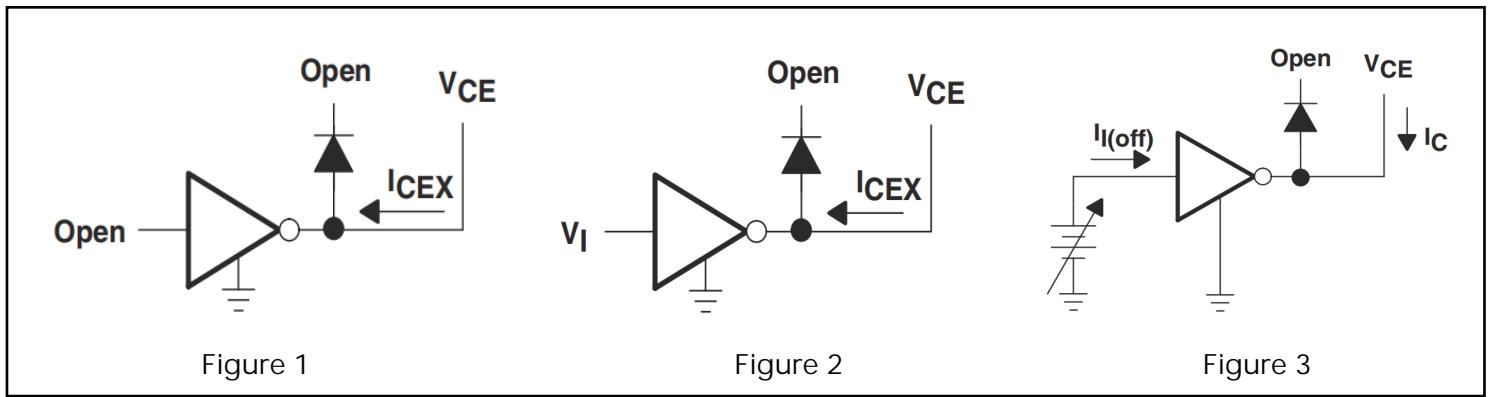
limit parameter	
Storage temperature:	65°C~150°C
Operating temperature range:	0 to 70
Junction temperature range:	40°C~150°C
Input Voltage:	0.3V~30V
Output Voltage:	100V
Maximum Emitter-to-Base Voltage:	6.0V
Collector continuous current:	500mA
Continuous Base Current	25mA

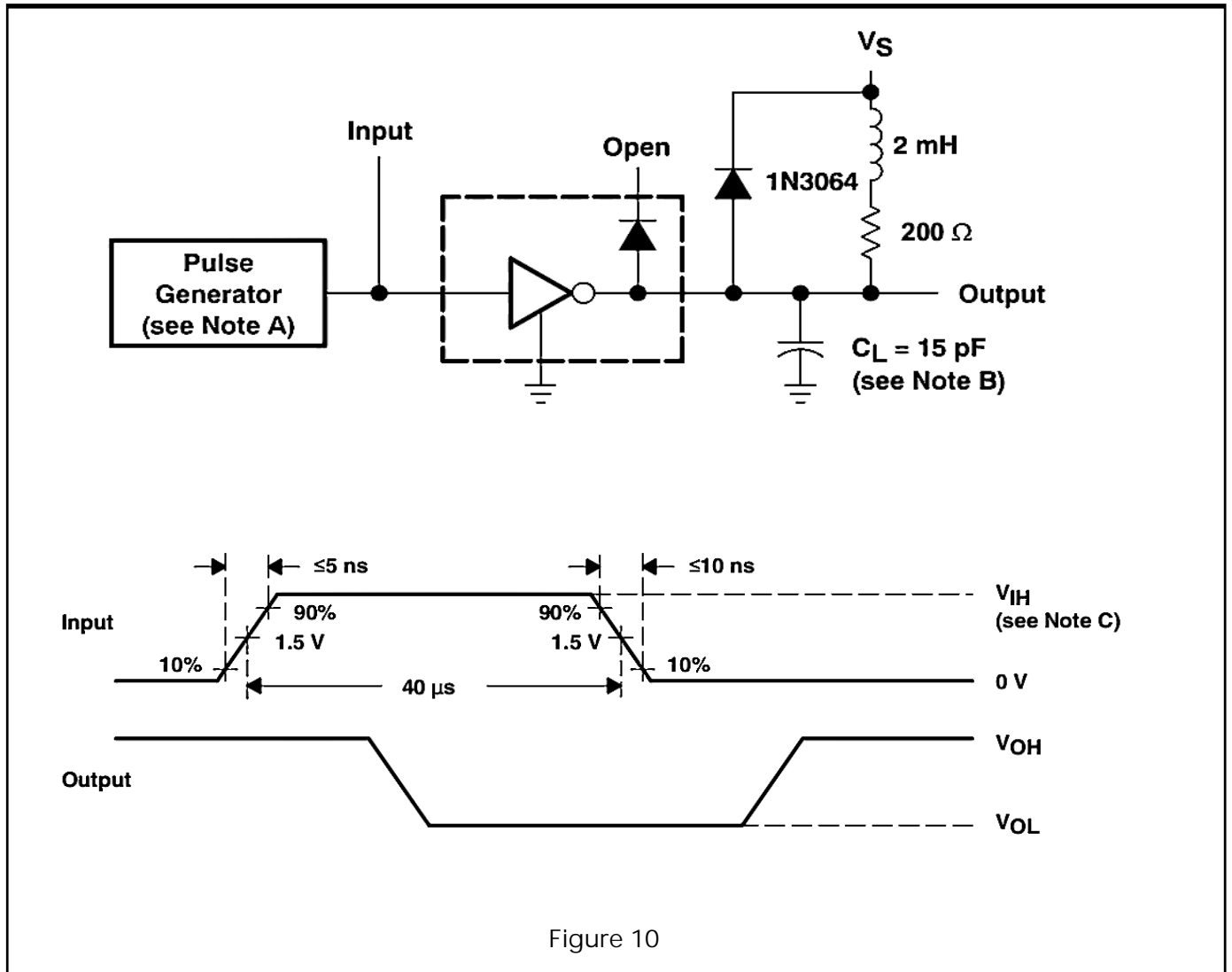
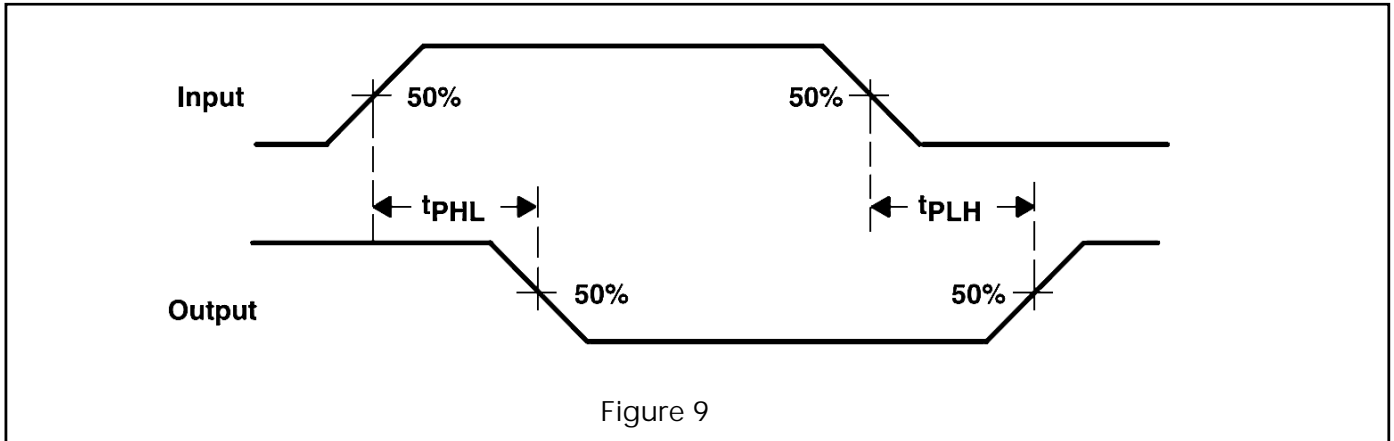


## Switching Characteristics

Parameter	Test conditions	75468/75469		unit
		Min	max	
tpLH propagation delay time, low to high output level	Please refer to Figure 9	0.25	1	μS
tPHL propagation delay time, high to low output level		0.25	1	μS

## Circuit Test



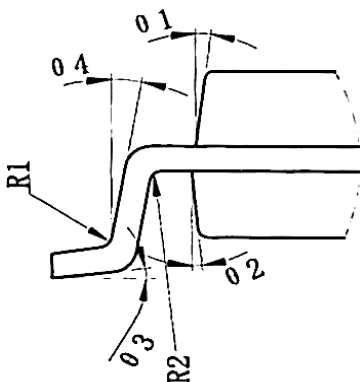
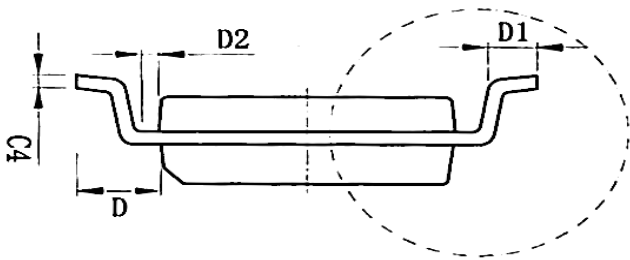
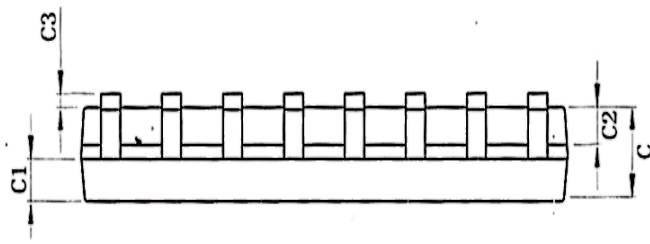
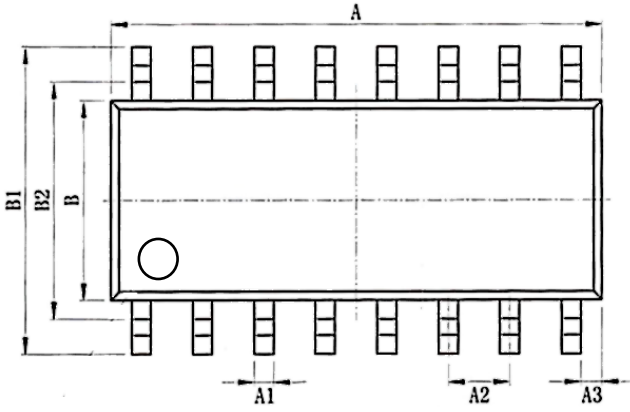


Note:

1. The absolute maximum ratings indicate limits beyond which the device may be damaged; they are not normal operating conditions. The electrical characteristics table provides the device's operating conditions;
2. Unless otherwise specified, all conditions apply to the Darlington array;
3. Under typical conditions, continuous operation of each output at  $^{\circ}\text{C}$ ,  $V^{CE(sat)} = 1.6\text{ V}$ , and a pulse width of 20ms



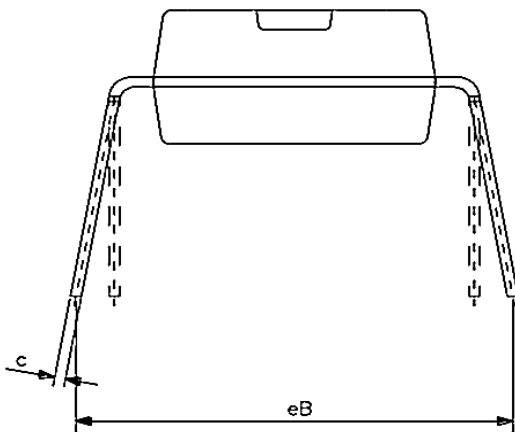
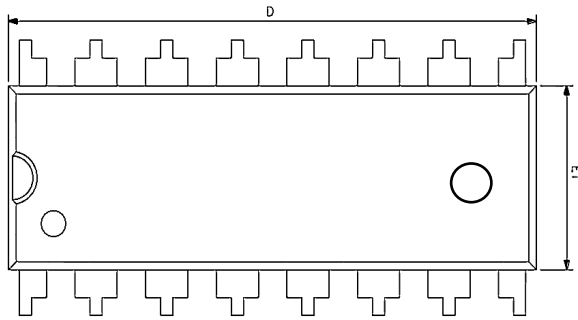
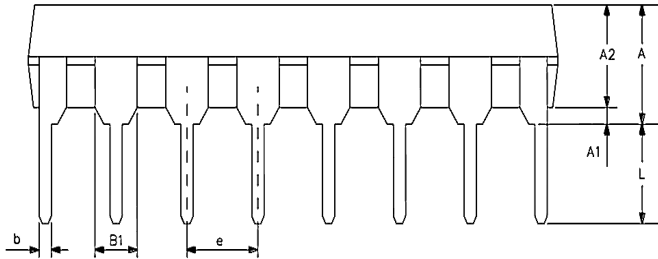
Package SOP16



SIZE	MIN./mm	MAX./mm
<b>SYMBOL</b>		
A	9.80	10.00
A1	0.356	0.456
A2	1.27TYP	
A3	0.302TYP	
B	3.85	3.95
B1	5.84	6.24
B2	5.00 TYP	
C	1.40	1.60
C1	0.61	0.71
C2	0.54	0.64
C3	0.05	0.25
C4	0.203	0.233
D	1.05 TYP	
D1	0.40	0.70
D2	0.15	0.25
R1	0.20TYP	
R2	0.20TYP	
01	8°~12°TYP4	
02	8°~12°TYP4	
03	0°~8°	
04	4°~12°	



Package DIP16



SIZE SYMBOL	MIN./mm	MAX./mm
A2	3.20	3.60
A1	0.51	—
A	3.60	5.33
L	3.00	3.60
b	0.36	0.56
B1	1.52	
D	18.80	19.94
E1	6.20	6.60
e	2.54	
C	0.20	0.36
eB	7.62	9.30
R	0.20TYP	
R1	0.30TYP	
$\theta$	0°	8°
$\theta_1$	45°TYP	
$O_2$	12°TYP	
$O_3$	0°	8°
$O_4$	0°	10°



## Order information

Order Number	Package	Package Quantity	Marking On The park	Temperature
SN75468N-TUDI	DIP16	Tube,25,A box of 1000	SN75468N	0°C to 70°C
SN75468DR-TUDI	SOP16	Tape,Reel,2500	SN75468	
SN75469N-TUDI	DIP16	Tube,25,A box of 1000	SN75469N	
SN75469DR-TUDI	SOP16	Tape,Reel,2500	SN75469	



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