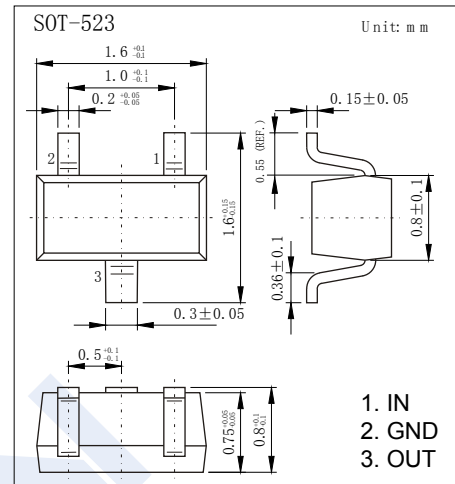
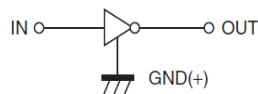
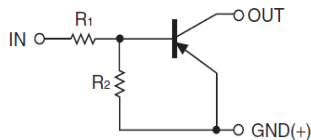


## Digital Transistors

### DTA123YE (KDTA123YE)

#### ■ Features

- Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors(see equivalent circuit)
- The bias resistors consist of thin-film resistors with complete isolation to allow positive biasing of the input.They also have the advantage of almost completely eliminating parasitic effects
- Only the on/off conditions need to be set for operation, making device design easy



#### ■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Supply Voltage	V <sub>CC</sub>	-50	V
Input Voltage	V <sub>IN</sub>	-12~+5	
Output Current	I <sub>O</sub>	-100	mA
Power Dissipation	P <sub>D</sub>	150	mW
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature range	T <sub>stg</sub>	-55 to 150	

#### ■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input voltage	V <sub>I(off)</sub>	V <sub>CC</sub> = -5 V , I <sub>O</sub> =-100 uA	-0.3			V
	V <sub>I(on)</sub>	V <sub>O</sub> = -0.3 V , I <sub>O</sub> =-20 mA			-3	
Output voltage	V <sub>O(on)</sub>	I <sub>O</sub> = -10 mA, I <sub>I</sub> =-0.5 mA			-0.3	
Input current	I <sub>I</sub>	V <sub>I</sub> = -5 V			-3.8	mA
Output current	I <sub>O(off)</sub>	V <sub>CC</sub> = -50 V , V <sub>I</sub> =0			-0.5	uA
DC current gain	G <sub>I</sub>	V <sub>O</sub> =-5V, I <sub>O</sub> =-10mA	33			
Input resistance	R <sub>1</sub>		1.54	2.2	2.86	KΩ
Resistance ratio	R <sub>2</sub> /R <sub>1</sub>		3.6	4.5	5.5	
Transition frequency	f <sub>T</sub>	V <sub>O</sub> = -10V, I <sub>O</sub> = -5mA, f=100MHz		250		MHz

#### ■ Marking

Marking	52
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# Digital Transistors

## DTA123YE (KDTA123YE)

■ Typical Characteristics

