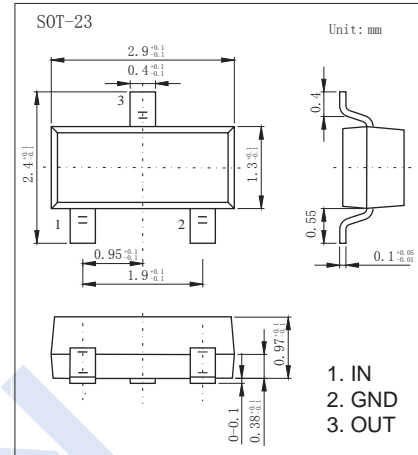
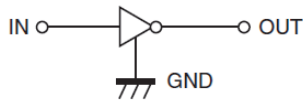
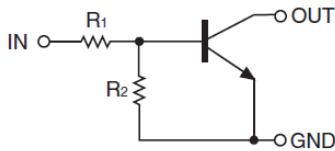


## Digital Transistors

## KTC104

## ■ 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  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
Supply Voltage	$V_{CC}$	50	V
Input Voltage	$V_{IN}$	-5~+12	
Output Current	$I_o$	100	mA
Power Dissipation	$P_D$	200	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature range	$T_{stg}$	-55 to 150	

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Input voltage	$V_{I(off)}$	$V_{CC} = 5\text{ V}, I_o = 100\text{ }\mu\text{A}$	0.3			V
	$V_{I(on)}$	$V_o = -0.3\text{ V}, I_o = 20\text{ mA}$			3	
Output voltage	$V_{O(on)}$	$I_o = 10\text{ mA}, I_i = 0.5\text{ mA}$		0.1	0.3	
Input current	$I_i$	$V_i = 5\text{ V}$			3.8	mA
Output current	$I_{o(off)}$	$V_{CC} = 50\text{ V}, V_i = 0$			0.5	$\mu\text{A}$
DC current gain	$G_i$	$V_o = -5\text{ V}, I_o = 10\text{ mA}$	33			
Input resistance	$R_i$		1.54	2.2	2.86	K $\Omega$
Resistance ratio	$R_2/R_1$		3.6	4.5	5.5	
Transition frequency	$f_T$	$V_o = 10\text{ V}, I_o = 5\text{ mA}, f = 100\text{ MHz}$		250		MHz

## ■ Marking

Marking	62
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# Digital Transistors

## KTC104

### Typical Characteristics

