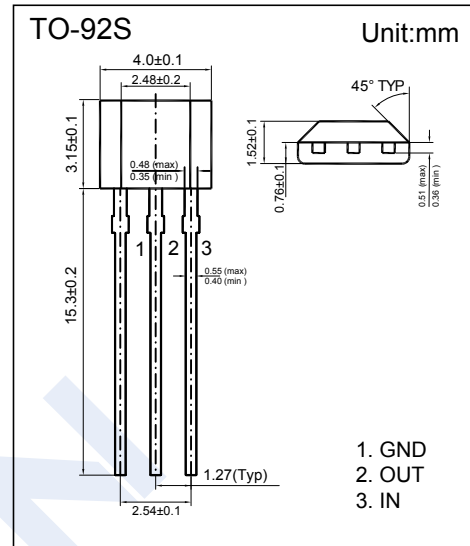
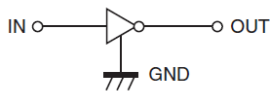
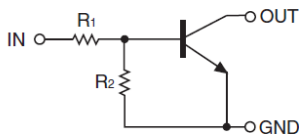


Digital Transistors

DTC124ESA (KDTC124ESA)

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}	-10~+40	
Output Current	I_o	30	mA
Peak Collector Current	I_{CM}	100	
Power Dissipation	P_D	200	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
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	$V_{I(off)}$	$V_{CC} = 5\text{ V}, I_o = 100\ \mu\text{A}$	0.5			V
	$V_{I(on)}$	$V_o = 0.2\text{ V}, I_o = 5\text{ mA}$			3	
Output voltage	$V_{O(on)}$	$I_o = 10\text{ mA}, I_i = 0.5\text{ mA}$			0.3	
Input current	I_i	$V_i = 5\text{ V}$			0.36	mA
Output current	$I_{o(off)}$	$V_{CC} = 50\text{ V}, V_i = 0$			0.5	μA
DC current gain	G_I	$V_o = 5\text{ V}, I_o = 5\text{ mA}$	56			
Input resistance	R_1		15.4	22	28.6	K Ω
Resistance ratio	R_2/R_1		0.8	1	1.2	
Transition frequency	f_T	$V_o = 10\text{ V}, I_o = 5\text{ mA}, f = 100\text{ MHz}$		250		MHz

Digital Transistors

DTC124ESA (KDTC124ESA)

■ Typical Characteristics

