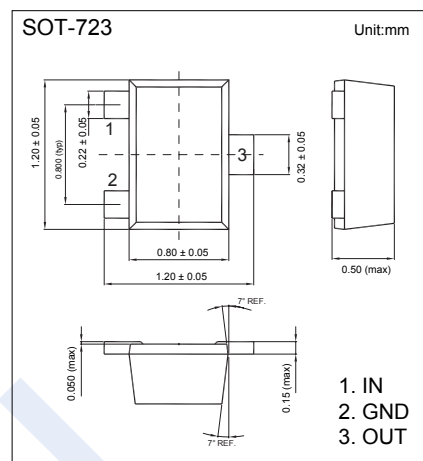
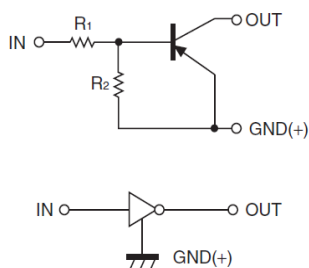


Digital Transistors

DTA114EM (KDTA114EM)

■ 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}	-40~+10	
Output Current	I_O	-50	mA
Peak Collector Current	I_{CM}	-100	
Power Dissipation	P_D	100	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
	$V_{I(on)}$	$V_O = -0.3\text{ V}$, $I_O = -10\text{ mA}$			-3	
Output voltage	$V_{O(on)}$	$I_O = -10\text{ mA}$, $I_I = -0.5\text{ mA}$			-0.3	
Input current	I_I	$V_I = -5\text{ V}$			-0.88	mA
Output current	$I_{O(off)}$	$V_{CC} = -50\text{ V}$, $V_I = 0$			-0.5	μA
DC current gain	G_I	$V_O = -5\text{ V}$, $I_O = -5\text{ mA}$	30			
Input resistance	R_1		7	10	13	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

■ Marking

Marking	14
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Digital Transistors

DTA114EM (KDTA114EM)

■ Typical Characteristics

