DTA114EK

PNP Digital Transistor

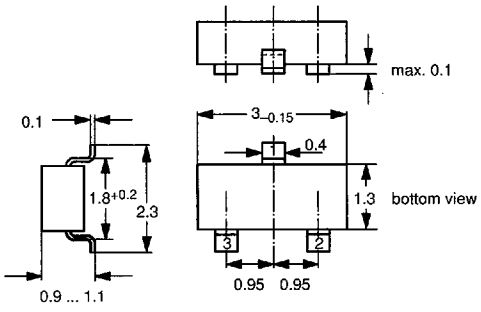
with built-in bias resistor. This allows inverter circuit configuration without external resistors for input.

The pin configuration is the following:

1 = Collector/OUT

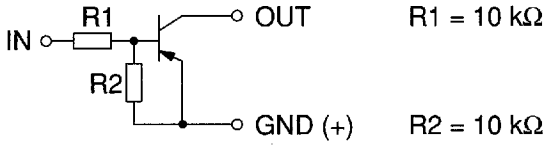
2 = Base/IN

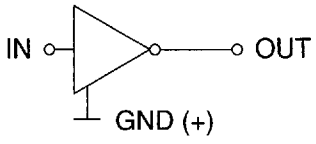
3 = Emitter/GND



Plastic Package JEDEC TO-236
23 A 3 according to DIN 41869
The case is impervious to light.

Weight approximately 0.008 g
Dimensions in mm





Equivalent circuit

Absolute Maximum Ratings

	Symbol	Value	Unit
Supply Voltage	$-V_{SUP}$	50	V
Input Voltage	$-V_I$	40	V
	V_I	10	V
Collector Current	$-I_C$	50	mA
Peak Collector Current	$-I_{CM}$	100	mA
Power Dissipation	P_{tot}	200[1)]	mW
Junction Temperature	T_j	125	°C
Storage Temperature Range	T_S	–55 to +125	°C

[1)] Device on fiberglass substrate 30 mm x 10 mm, pad size 2 mm x 2 mm

Characteristics at T_{amb} = 25 °C

	Symbol	Min.	Typ.	Max.	Unit
Input OFF Voltage at $-V_{SUP}$ = 5 V, $-I_O$ = 100 µA	$-V_{I(OFF)}$	0.5	–	–	V
Input ON Voltage at $-V_O$ = 0.3 V, $-I_O$ = 10 mA	$-V_{I(ON)}$	–	–	3.0	V
Output ON Voltage at $-I_O$ = 10 mA , $-I_I$ = 0.5 mA	$-V_{O(ON)}$	–	0.1	0.3	V
Input Current at V_I = 5 V,	$-I_I$	–	–	0.88	V
Output OFF Current at $-V_{SUP}$ = 30 V, V_I = 0 V	$-I_{O(OFF)}$	–	–	10	µA
DC Current Gain at $-I_O$ = 5 mA, $-V_O$ = 5 V	G_I	30	–	–	–
Input Resistance	R1	–	10	–	kΩ
Resistance Ratio	R2/R1	0.8	1	1.2	–
Transition Frequency at $-V_{CE}$ = 10 V, I_E = 5 mA	f_T	–	250	–	MHz
Collector Base Capacitance at $-V_{CB}$ = 10 V, I_E = 0 mA, f = 1MHz	C_{ob}	–	4.7	–	pF
Switching Times at $-V_{SUP}$ = 5V, $-V_I$ = 5 V, R_L = 1 kΩ Rise Time Storage Time Fall Time	 t_r t_s t_f	 – – –	 0.06 1.1 0.24	 – – –	 µs µs µs