UTC DTA143Z

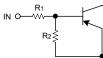
PNP DIGITAL TRANSISTOR

PNP DIGITAL TRANSISTOR (BUILT-IN RESISTORS)

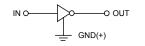
FEATURES

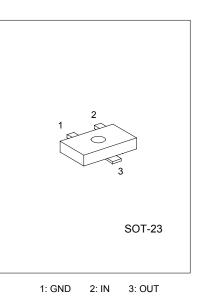
- * Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors (see equivalent circuit).
- * The bias resistors consist of thin-film resistors with complete isolation to allow positive biasing of the input. They also have the advantage of almost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

EQUIVALENT CIRCUIT









ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

	-20 C)			
PARAMETER	SYMBOL	RATINGS	UNIT	
Supply voltage	Vcc	-50	V	
Input voltage	VIN	-30 ~ +5	V	
Output current	lo	-100	mA	
	IC (Max.)	-100		
Power dissipation	PD	200	mW	
Junction temperature	Tj	150	°C	
Storage temperature	Tstg	-55 ~ +150	°C	

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ELECTRICAL CHARACTERISTICS (Ta = 25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input voltage	VI (off)	Vcc=-5V, Io=-100 μ A	-0.5 V			
	VI (on)	Vo=-0.3V, Io=-5mA	-1.3			v
Output voltage	VO (on)	Io/II=-5mA/-0.25mA		-0.1	-0.3	V
Input current	li	VI=-5V			-1.8	mA
Output current	IO (off)	Vcc=-50V, VI=0V			-0.5	μA
DC current gain	Gi	Vo=-5V, Io=-10mA	80			
Input resistance	R1		3.29	4.7	6.11	KΩ
Resistance ratio	R2/R1		8	10	12	
Transition frequency	fт	Vce=-10V, Ie=5mA, f=100MHz *		250		MHz

* Transition frequency of the device

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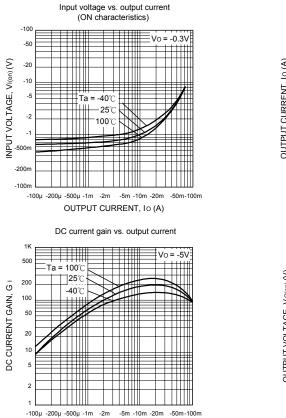
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PNP DIGITAL TRANSISTOR

Output current vs. input voltage



OUTPUT CURRENT, IO (A)

(OFF characteristics) -10m Vcc = -5V -5m -2m OUTPUT CURRENT, Io (A) -1m -500L 100° -200µ 25° -100µ 40 -50µ -20L -10µ -5µ -2µ -1µ 0 -1.0 -1.5 -2.0 -2.5 -3.0 -0.5 INPUT VOLTAGE, VI(off) (V) Output voltage vs. output current lo/li = 20 -500r **Ta = 100°**C OUTPUT VOLTAGE, V O(on) (V) **125℃** -200r -40℃ -100n -50n -20m -10m -5m -2m -1m -100µ -200µ -500µ -1m -2m -5m -10m -20m -50m-100m OUTPUT CURRENT, IO (A)

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