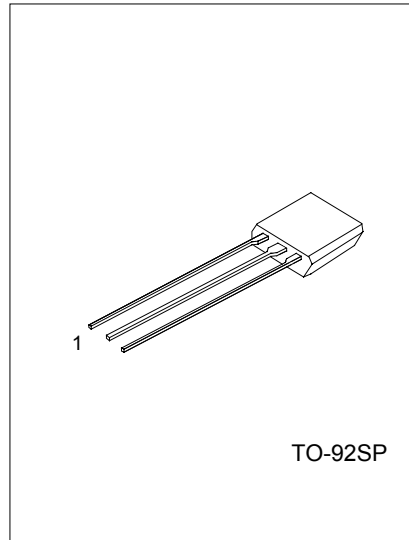
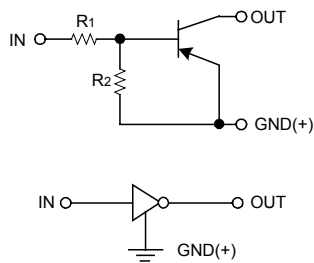


PNP DIGITAL TRANSISTOR  
(BUILT-IN RESISTORS)

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



1: GND 2: OUT 3: IN

ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

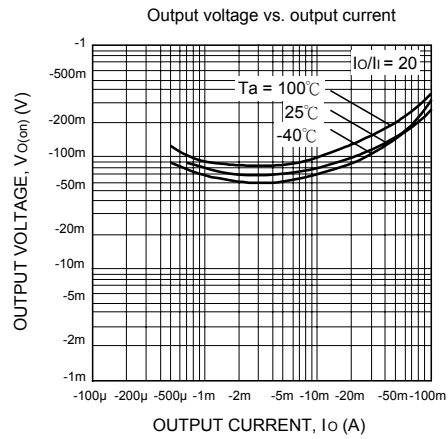
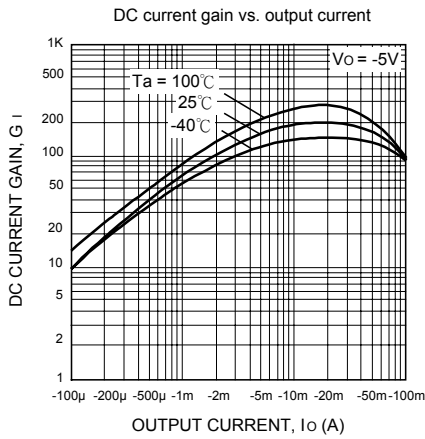
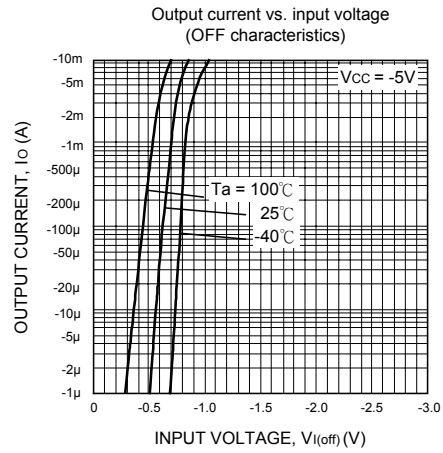
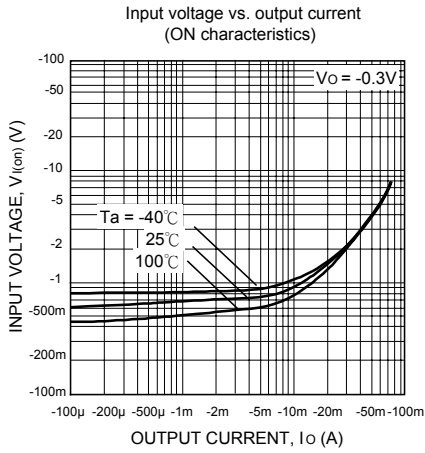
PARAMETER	SYMBOL	RATINGS	UNIT
Supply voltage	V <sub>CC</sub>	-50	V
Input voltage	V <sub>IN</sub>	-12 ~ +5	V
Output current	I <sub>O</sub>	-100	mA
	I <sub>C (Max.)</sub>	-100	
Power Dissipation	P <sub>D</sub>	300	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input voltage	V <sub>I (off)</sub>	V <sub>CC</sub> =-5V, I <sub>O</sub> =-100 μA			-0.5	V
	V <sub>I (on)</sub>	V <sub>O</sub> =-0.3V, I <sub>O</sub> =-5mA	-1.1			
Output voltage	V <sub>O (on)</sub>	I <sub>O</sub> /I <sub>I</sub> =-5mA/-0.25mA		-0.1	-0.3	V
Input current	I <sub>I</sub>	V <sub>I</sub> =-5V			-3.6	mA
Output current	I <sub>O (off)</sub>	V <sub>CC</sub> =-50V, V <sub>I</sub> =0V			-0.5	μA
DC current gain	G <sub>I</sub>	V <sub>O</sub> =-5V, I <sub>O</sub> =-10mA	80			
Input resistance	R <sub>1</sub>		1.54	2.2	2.86	KΩ
Resistance ratio	R <sub>2</sub> /R <sub>1</sub>		17	21	26	
Transition frequency	f <sub>T</sub>	V <sub>CE</sub> =-10V, I <sub>E</sub> =5mA, f=100MHz *		250		MHz

\* Transition frequency of the device

ELECTRICAL CHARACTERISTIC CURVES



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