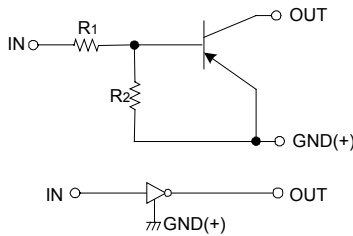


PNP DIGITAL TRANSISTOR
(BUILT-IN RESISTORS)

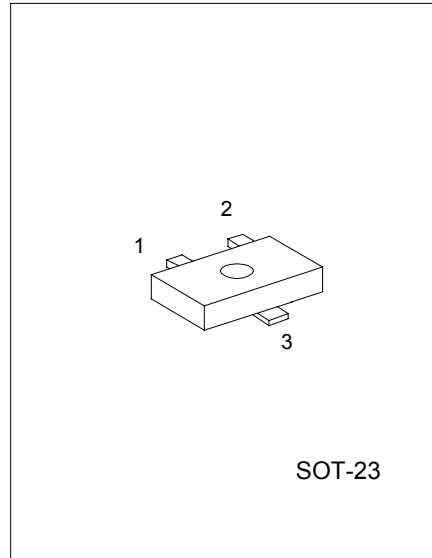
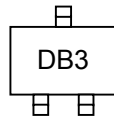
FEATURES

- *Built-in bias resistors enable the configuration of an inverter circuit without connecting external input resistors (see the 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



MARKING



SOT-23

1: GND 2: IN 3: OUT

ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Supply Voltage	V _{CC}	-50	V
Input Voltage	V _{IN}	-30~+10	V
Output Current	I _C	-500	mA
Power Dissipation	P _D	200	mW
Junction Temperature	T _J	150	°C
Storage Temperature	T _{STG}	-55 ~ +150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Input Voltage	V _{I(off)}	V _{CC} = -5V, I _O =100 μA			-0.5	V
	V _{I(ON)}	V _O = -0.3V, I _O = -20mA	-3			
Output Voltage	V _{O(ON)}	I _O /I _I = -50mA/-2.5 mA			-0.3	V
Input Current	I _I	V _I = -5V			-1.8	mA
Output Current	I _{O(off)}	V _{CC} = -50V, V _I =0V			-0.5	μA
DC Current Gain	G _I	V _O = -5V, I _O = -50mA	47			
Input Resistance	R ₁		3.29	4.7	6.11	kΩ
Resistance Ratio	R ₂ /R ₁		0.8	1	1.2	
Transition Frequency	f _T	V _{CE} = -10 V, I _E =5mA, f=100MHz *		200		MHz

*Transition frequency of the device

ELECTRICAL CHARACTERISTIC CURVES

Fig.1 Input voltage vs.output current (ON characteristics)

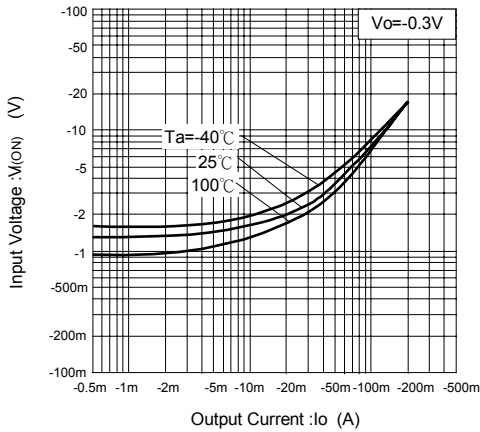


Fig.2 Output current vs Input voltage (OFF characteristics)

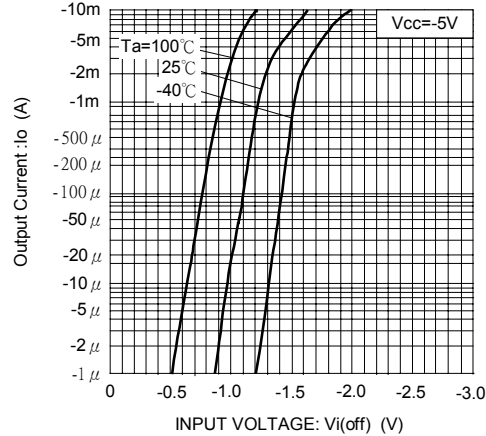
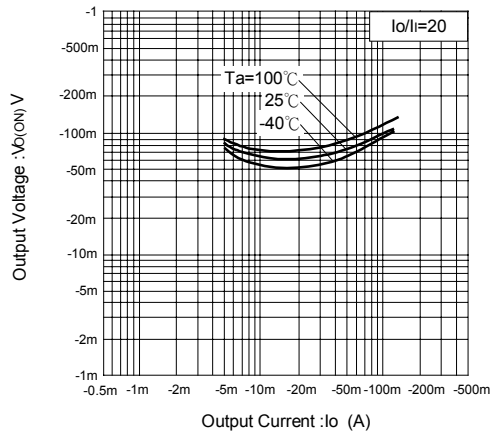
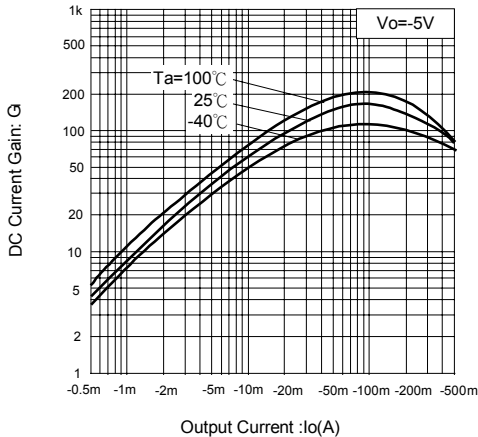


Fig.3 DC current gain vs.output current



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