

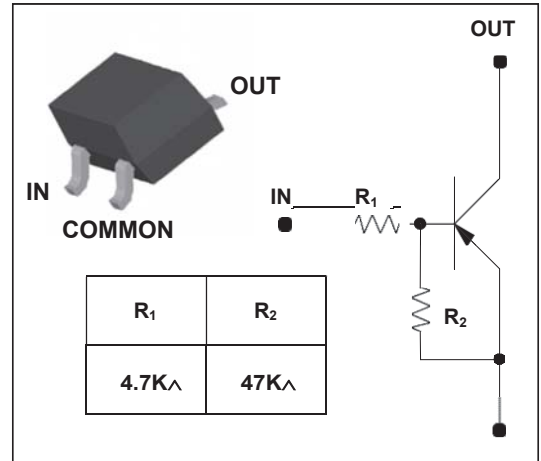
SOT-23 Plastic-Encapsulate Transistors

**FEATURES**

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- High packing density
- PNP Silicon Transistor

**MECHANICAL DATA**

- Case style:SOT-23 molded plastic
- Mounting position:any



**MAXIMUM RATINGS AND CHARACTERISTICS**

@ 25°C Ambient Temperature (unless otherwise noted)

Characteristic	Symbol	Rating	Unit
Output voltage	V <sub>O</sub>	-50	V
Input voltage	V <sub>I</sub>	-20, 5	V
Output current	I <sub>O</sub>	-100	mA
Power dissipation	P <sub>D</sub>	200	mW
Junction temperature	T <sub>J</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55 ~ 150	°C

**Electrical Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified).

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Output cut-off current	I <sub>O(OFF)</sub>	V <sub>O</sub> =-50V, V <sub>I</sub> =0	-	-	-500	nA
DC current gain	G <sub>I</sub>	V <sub>O</sub> =-5V, I <sub>O</sub> =-10mA	80	200	-	-
Output voltage	V <sub>O(ON)</sub>	I <sub>O</sub> =-10mA, I <sub>I</sub> =-0.5mA	-	-0.1	-0.3	V
Input voltage (ON)	V <sub>I(ON)</sub>	V <sub>O</sub> =-0.2V, I <sub>O</sub> =-5mA	-	-0.9	-1.3	V
Input voltage (OFF)	V <sub>I(OFF)</sub>	V <sub>O</sub> =-5V, I <sub>O</sub> =-0.1mA	-0.5	-0.65	-	V
Transition frequency	f <sub>T</sub> *	V <sub>O</sub> =-10V, I <sub>O</sub> =-5mA, f=1MHz	-	200	-	MHz
Input current	I <sub>I</sub>	V <sub>I</sub> =-5V, I <sub>O</sub> =0	-	-	-1.8	mA
Input resistor (Input to base)	R <sub>1</sub>	-	3.3	4.7	6.1	K $\Omega$
Input resistor (Base to common)	R <sub>2</sub>	-	33	47	61	K $\Omega$

\* : Characteristic of transistor only

RATINGS AND CHARACTERISTIC CURVES

Fig. 1  $P_c - T_a$

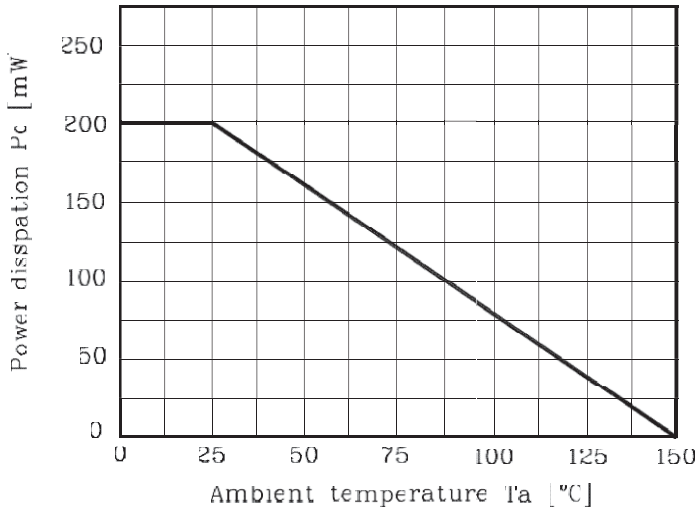


Fig. 2  $I_o - V_{I(ON)}$

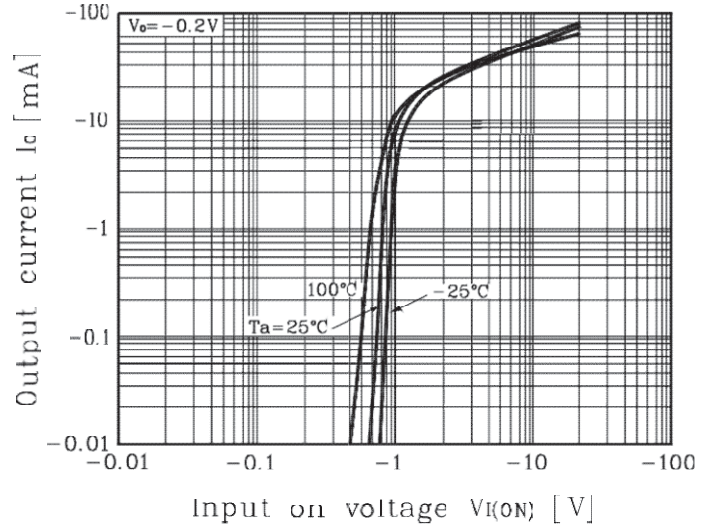


Fig. 3  $I_o - V_{I(OFF)}$

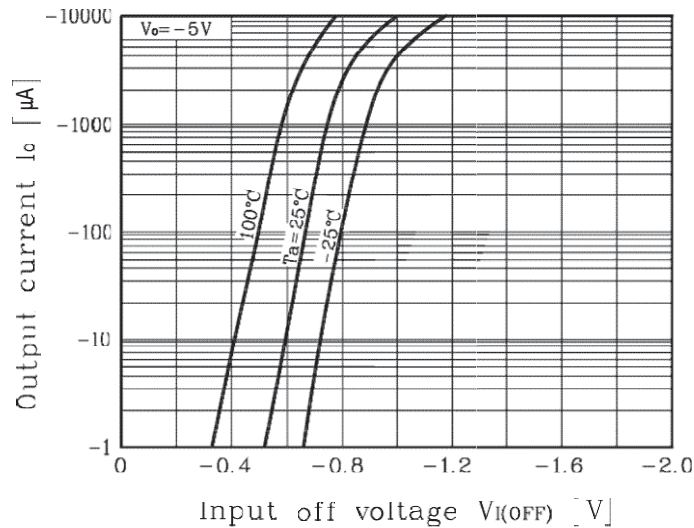
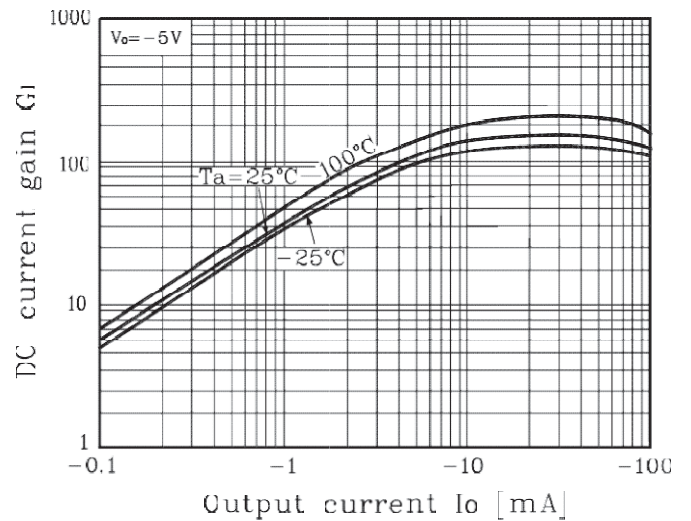
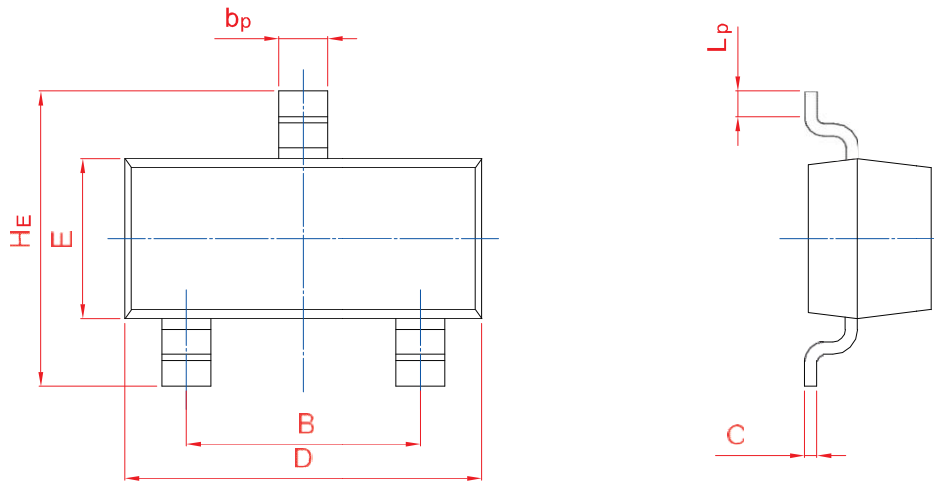
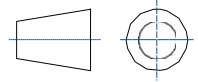


Fig. 4  $G_I - I_o$





UNIT	A	B	b <sub>p</sub>	C	D	E	H <sub>E</sub>	A <sub>1</sub>	L <sub>p</sub>
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20