

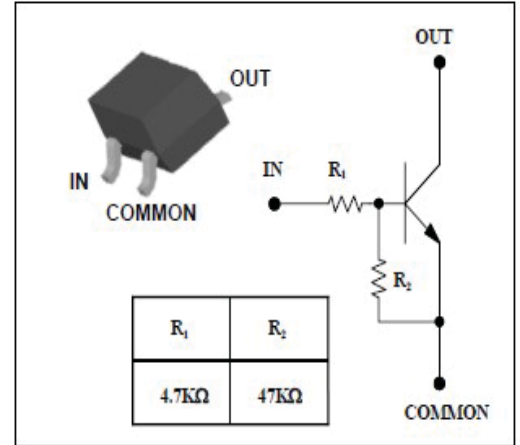
SOT-23 Plastic-Encapsulate Transistors

FEATURES

- With built-in bias resistors
- Simplify circuit design
- Reduce a quantity of parts and manufacturing process
- High packing density
- NPN 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	Ratings	Unit
Output voltage	V _O	50	V
Input voltage	V _I	20,-5	V
Output current	I _O	100	mA
Power dissipation	P _D	200	mW
Junction temperature	T _J	150	°C
Storage temperature range	T _{stg}	-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 _{O(OFF)}	V _O =50V, V _I =0	-	-	500	nA
DC current gain	G _I	V _O =5V, I _O =10mA	80	200	-	-
Output voltage	V _{O(ON)}	I _O =10mA, I _I =0.5mA	-	0.1	0.3	V
Input voltage (ON)	V _{I(ON)}	V _O =0.2V, I _O =5mA	-	0.9	1.3	V
Input voltage (OFF)	V _{I(OFF)}	V _O =5V, I _O =0.1mA	0.5	0.65	-	V
Transition frequency	f _T *	V _O =10V, I _O =5mA, f=1MHz	-	200	-	MHz
Input current	I _I	V _I =5V, I _O =0	-	-	1.8	mA
Input resistor (Input to base)	R ₁	-	3.3	4.7	6.1	KΩ
Input resistor (Base to common)	R ₂	-	33	47	61	KΩ

* : Characteristic of transistor only

RATINGS AND CHARACTERISTIC CURVES

Fig. 1 $P_D - T_a$

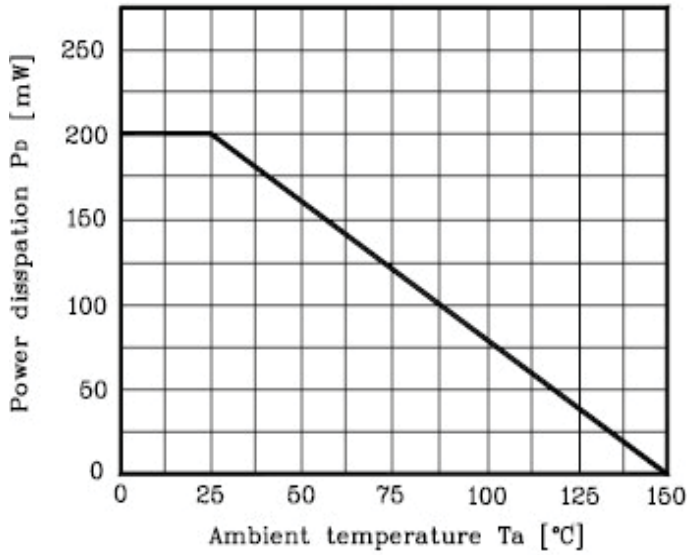


Fig. 2 $I_O - V_{I(ON)}$

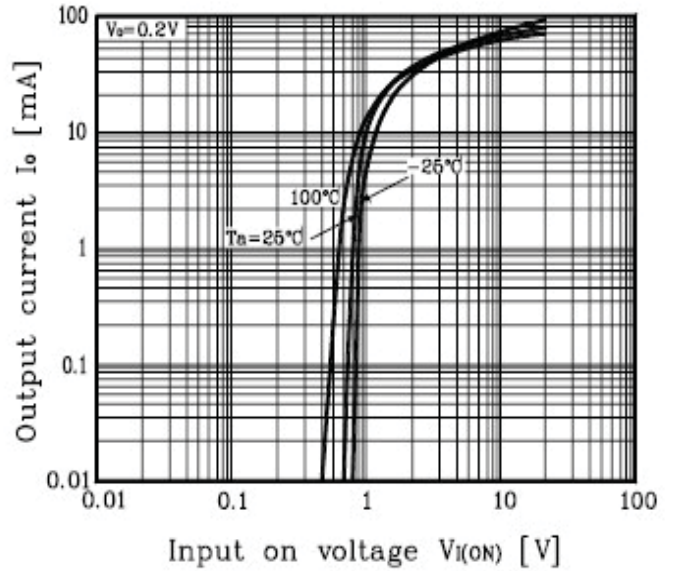


Fig. 3 $I_O - V_{I(OFF)}$

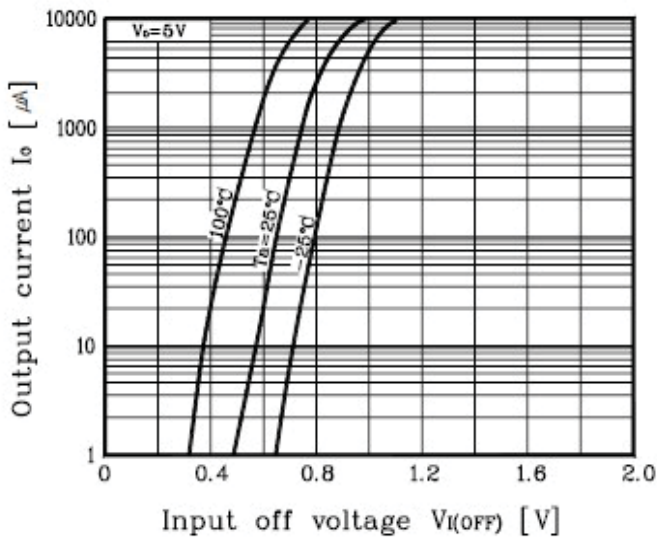
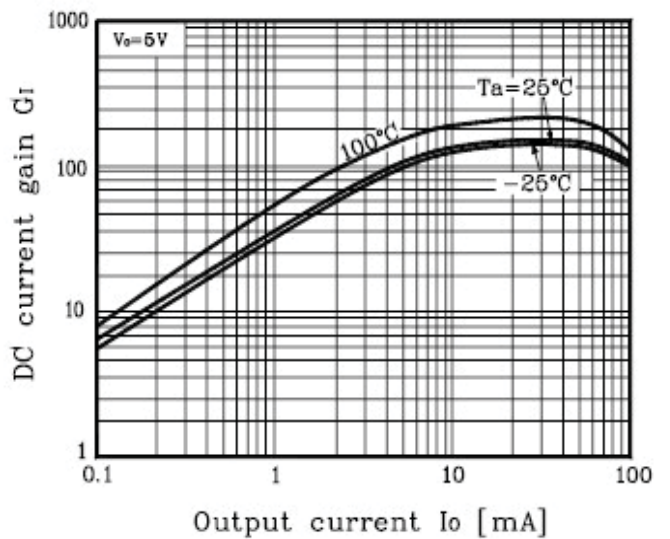
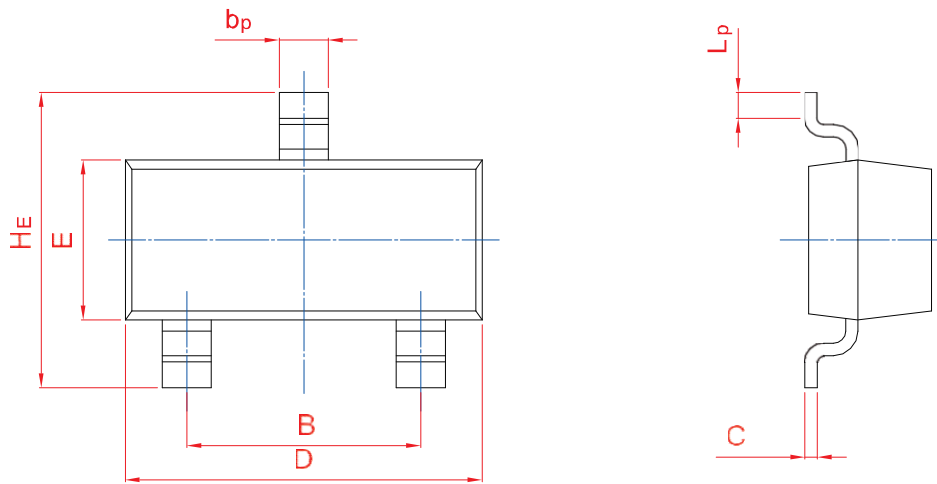


Fig. 4 $G_I - I_O$





UNIT	A	B	b_p	C	D	E	HE	A_1	L_p
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