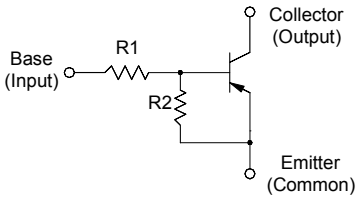
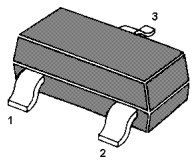
PNP Silicon Epitaxial Planar Digital Transistor

for switching and interface circuit and drive circuit applications





1.Base 2.Emitter 3.Collector
SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

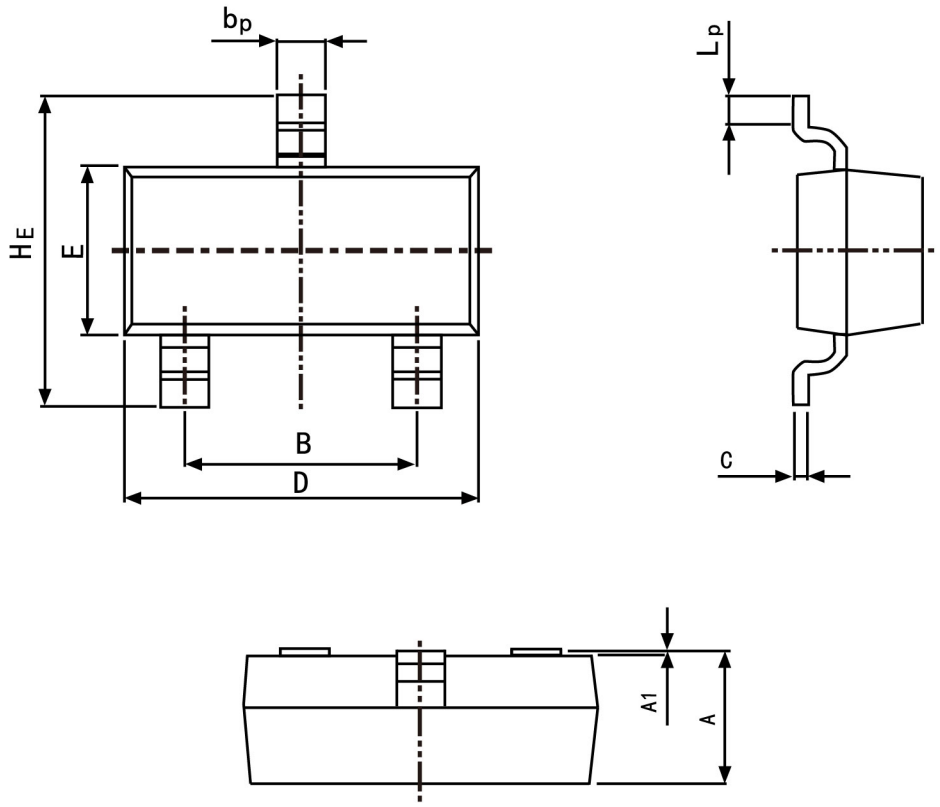
Parameter	Symbol	Value	Unit
Supply Voltage	$-V_{CC}$	50	V
Input Voltage	V_I	- 20 to + 7	V
Output Current	$-I_O$	100	mA
Total Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	- 55 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_O$ = 5 V, $-I_O$ = 10 mA	h_{FE}	30	-	-	-
Output Current at $-V_{CC}$ = 50 V	$-I_{O(off)}$	-	-	0.5	μA
Input Current at $-V_I$ = 5 V	$-I_I$	-	-	1.8	mA
Input Off Voltage at $-V_{CC}$ = 5 V, $-I_O$ = 100 μA	$-V_{I(off)}$	0.3	-	-	V
Input On Voltage at $-V_O$ = 0.3 V, $-I_O$ = 20 mA	$-V_{I(on)}$	-	-	2.5	V
Output Voltage at $-I_O$ = 10 mA, $-I_I$ = 0.5 mA	$-V_{O(on)}$	-	-	0.3	V
Input Resistance	R1	3.29	4.7	6.11	KΩ
Resistance Ratio	R2/R1	1.7	2.1	2.6	-
Transition Frequency at $-V_{CE}$ = 10 V, I_E = 5 mA, f = 100 MHz	f_T	-	250	-	MHz

PACKAGE OUTLINE

Plastic surface mounted package; 3 leads **SOT-23**



Symbol	Dimension in Millimeters	
	Min	Max
A	0.95	1.40
B	1.78	2.04
bp	0.35	0.50
C	0.08	0.19
D	2.70	3.10
E	1.20	1.65
HE	2.20	3.00
A1	0.100	0.013
Lp	0.20	0.50