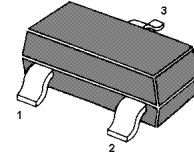


PNP Silicon Epitaxial Planar Transistor

For use in small type equipments, especially recommended or hybrid circuit and other applications



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

The transistor is subdivided into five groups A, B, C, D and E, according to its DC current gain.

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	30	V
Collector Emitter Voltage	$-V_{CEO}$	25	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	700	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{CE} = 1\text{ V}$, $-I_C = 100\text{ mA}$	A	h_{FE}	110	-	180	-
	B	h_{FE}	135	-	220	-
	C	h_{FE}	170	-	270	-
	D	h_{FE}	200	-	320	-
	E	h_{FE}	250	-	400	-
at $-V_{CE} = 1\text{ V}$, $-I_C = 700\text{ mA}$		h_{FE}	50	-	-	-
Collector Base Cutoff Current at $-V_{CB} = 30\text{ V}$	$-I_{CBO}$	-	-	100	nA	
Emitter Base Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	-	100	nA	
Collector Base Breakdown Voltage at $-I_C = 100\text{ }\mu\text{A}$	$-V_{(BR)CBO}$	30	-	-	V	
Collector Emitter Breakdown Voltage at $-I_C = 1\text{ mA}$	$-V_{(BR)CEO}$	25	-	-	V	
Emitter Base Breakdown Voltage at $-I_E = 100\text{ }\mu\text{A}$	$-V_{(BR)EBO}$	5	-	-	V	
Collector Emitter Saturation Voltage at $-I_C = 700\text{ mA}$, $-I_B = 70\text{ mA}$	$-V_{CE(sat)}$	-	-	0.6	V	
Base Emitter On Voltage at $-V_{CE} = 6\text{ V}$, $-I_C = 10\text{ mA}$	$-V_{BE(on)}$	0.6	-	0.7	V	
Output Capacitance at $-V_{CB} = 6\text{ V}$, $I_E = 0$, $f = 1\text{ MHz}$	C_{ob}	-	17	-	pF	
Transition Frequency at $-V_{CE} = 6\text{ V}$, $-I_C = 10\text{ mA}$	f_T	-	160	-	MHz	

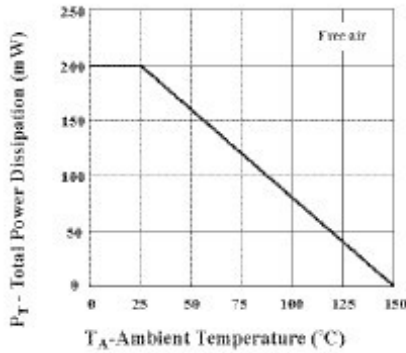


Fig.1 TOTAL POWER DISSIPATION VS. AMBIENT TEMPERATURE

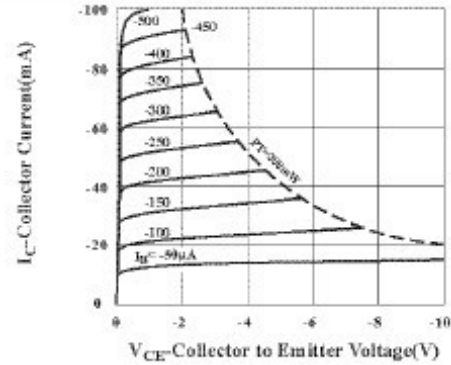


Fig.2 COLLECTOR CURRENT VS. COLLECTOR TO EMITTER VOLTAGE

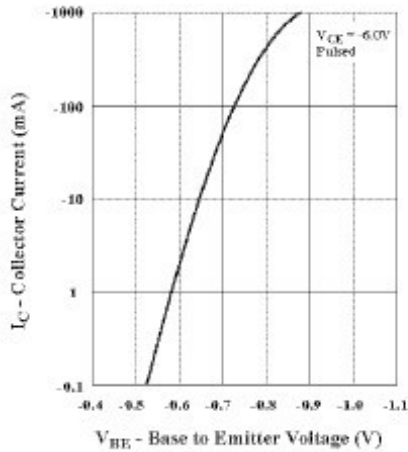


Fig.3 COLLECTOR CURRENT VS. BASE TO EMITTER VOLTAGE

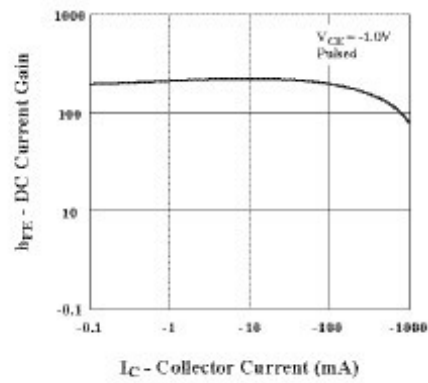


Fig.4 DC CURRENT GAIN VS. COLLECTOR CURRENT

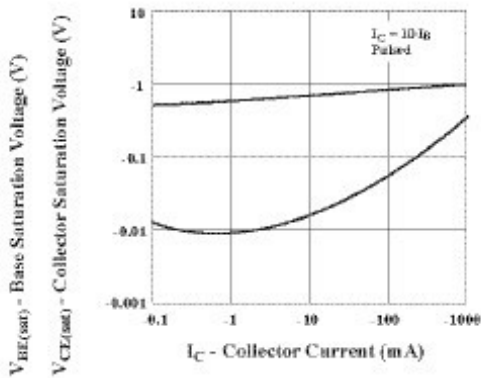


Fig.5 BASE AND COLLECTOR SATURATION VOLTAGE VS. COLLECTOR CURRENT

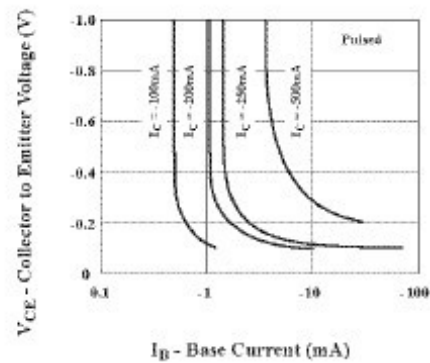


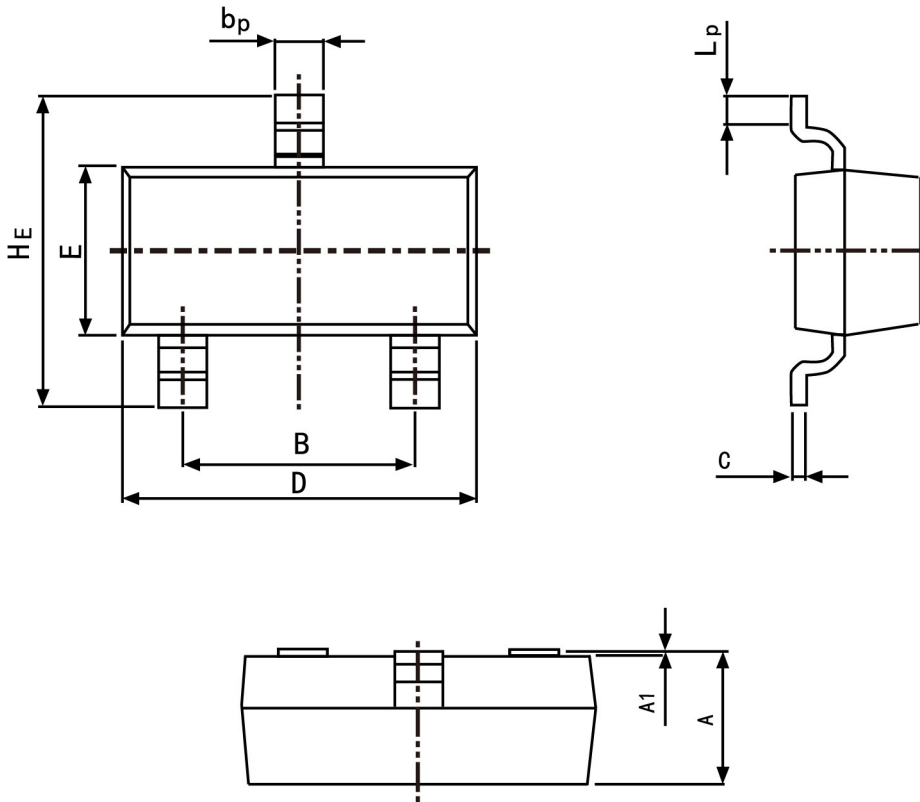
Fig.6 COLLECTOR TO EMITTER VOLTAGE VS. BASE CURRENT



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
b_p	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
L_p	0.20	0.50