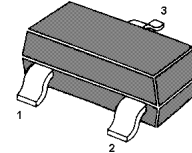


## NPN Silicon Epitaxial Planar Transistor

Audio Frequency Power amplifier applications.

The transistor is subdivided into three group O, Y and G according to its DC current gain.

On special request, these transistors can be manufactured in different pin configurations.



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

### Absolute Maximum Ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	40	V
Collector Emitter Voltage	$V_{CEO}$	30	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	1	A
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	°C
Storage Temperature Range	$T_s$	-55 to +150	°C



**Characteristics at  $T_{amb}=25\text{ }^{\circ}\text{C}$**

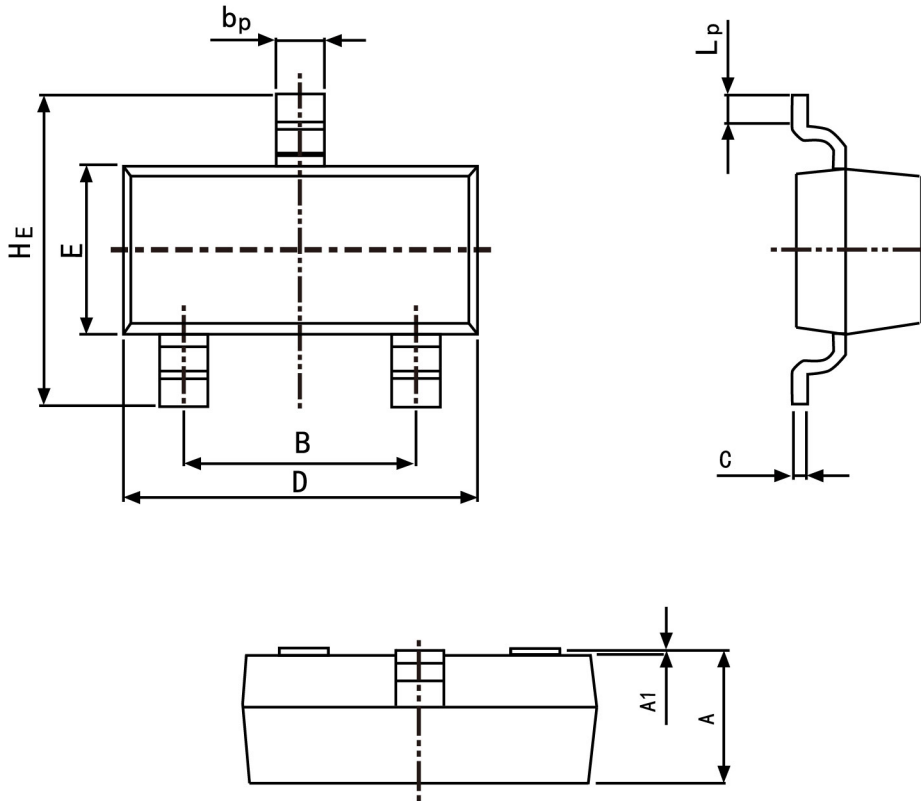
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=1\text{V}$ , $I_C=100\text{mA}$					
Current Gain Group O	$h_{FE}$	90	-	180	-
Y	$h_{FE}$	135	-	270	-
G	$h_{FE}$	200	-	400	-
Collector Emitter Breakdown Voltage at $I_C=10\text{mA}$	$V_{(BR)CEO}$	30	-	-	V
Collector Base Breakdown Voltage at $I_C=100\mu\text{A}$	$V_{(BR)CBO}$	40	-	-	V
Emitter Base Breakdown Voltage at $I_E=100\mu\text{A}$	$V_{(BR)EBO}$	5	-	-	V
Collector Cutoff Current at $V_{CB}=30\text{V}$	$I_{CBO}$	-	-	0.1	$\mu\text{A}$
Collector Saturation Voltage at $I_C=1.0\text{A}$ , $I_B=100\text{mA}$	$V_{CE(sat)}$	-	-	0.5	V
Base Saturation Voltage at $I_C=1.0\text{A}$ , $I_B=100\text{mA}$	$V_{BE(sat)}$	-	-	1.2	V
Collector Output Capacitance at $V_{CB}=6\text{V}$ , $f=1\text{MHz}$	$C_{OB}$	-	18	-	pF
Transition Frequency at $V_{CE}=6\text{V}$ , $I_C=10\text{mA}$	$f_T$	-	130	-	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