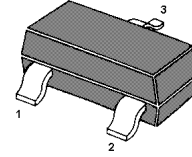


NPN Silicon Epitaxial Planar Transistor

for general purpose application

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



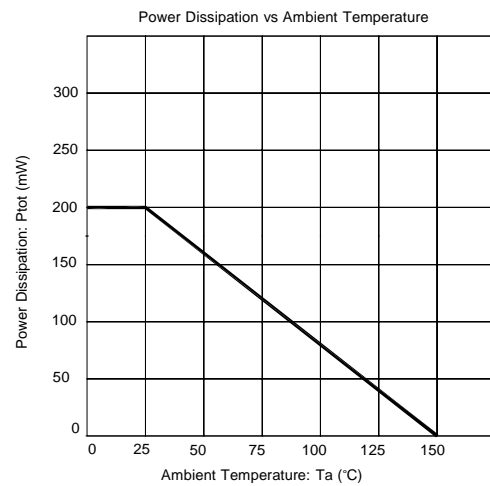
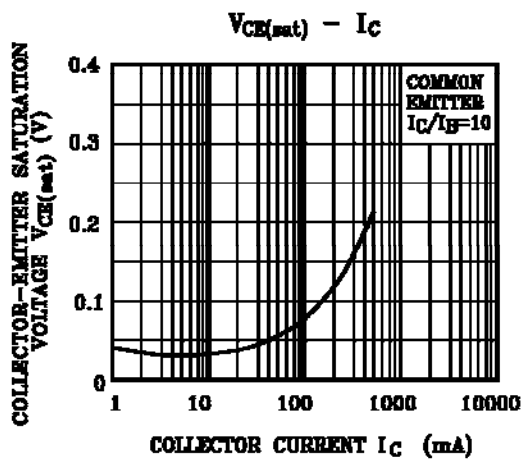
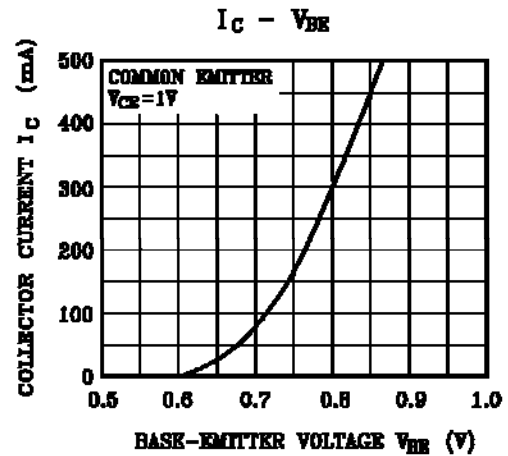
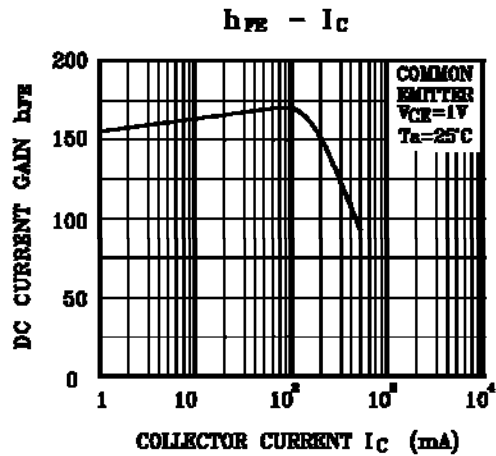
1.Base 2.Emitter 3.Collector
SOT-23 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	35	V
Collector Emitter Voltage	V_{CEO}	30	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	500	mA
Base Current	I_B	50	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 $V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$ at $V_{CE} = 6\text{ V}$, $I_C = 400\text{ mA}$	O	h_{FE}	70	-	140	-
	Y	h_{FE}	120	-	240	-
	G	h_{FE}	200	-	400	-
	O	h_{FE}	25	-	-	-
	Y	h_{FE}	40	-	-	-
	G	h_{FE}	40	-	-	-
Collector Cutoff Current at $V_{CB} = 35\text{ V}$	I_{CBO}	-	-	0.1	μA	
Emitter Cutoff Current at $V_{EB} = 5\text{ V}$	I_{EBO}	-	-	0.1	μA	
Collector Emitter Saturation Voltage at $I_C = 100\text{ mA}$, $I_B = 10\text{ mA}$	$V_{CE(sat)}$	-	-	0.25	V	
Base Emitter Voltage at $V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$	V_{BE}	-	-	1	V	
Transition Frequency at $V_{CE} = 6\text{ V}$, $I_C = 20\text{ mA}$	f_T	-	300	-	MHz	
Collector Base Capacitance at $V_{CB} = 6\text{ V}$, $f = 1\text{ MHz}$	C_{cb}	-	7	-	pF	

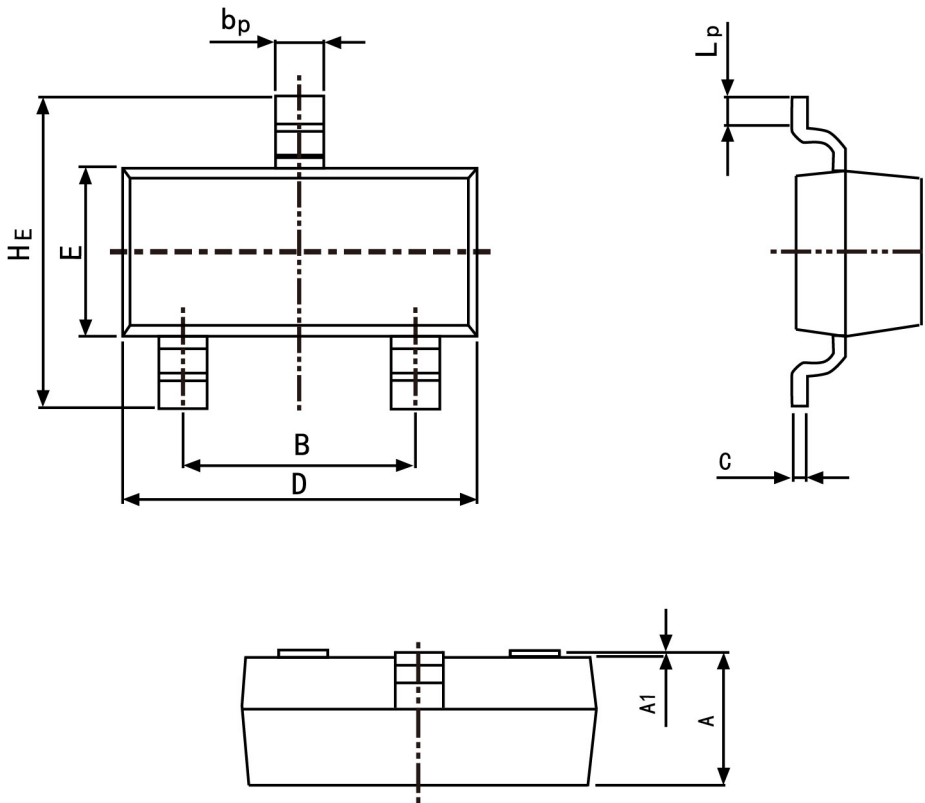




PACKAGE OUTLINE

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