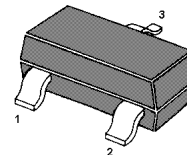


## NPN Silicon Epitaxial Planar Transistor



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

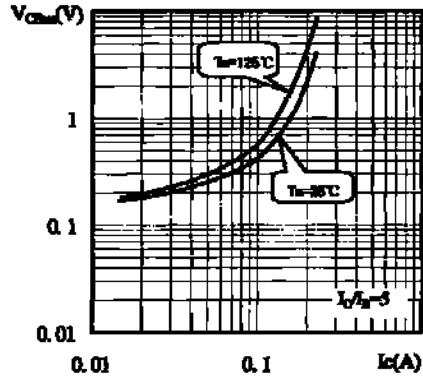
### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	700	V
Collector Emitter Voltage	$V_{CEO}$	420	V
Emitter Base Voltage	$V_{EBO}$	10	V
Collector Current	$I_C$	150	mA
Power Dissipation	$P_{tot}$	300	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

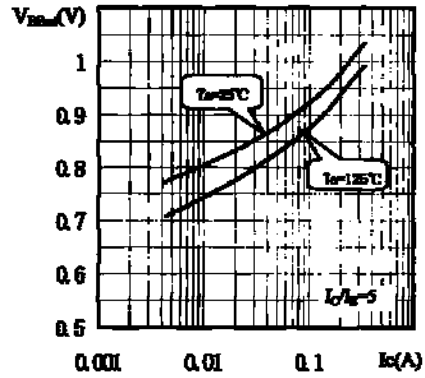
### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 20\text{ V}$ , $I_C = 10\text{ mA}$	$h_{FE}$	15	25	-
Collector Base Cutoff Current at $V_{CB} = 700\text{ V}$	$I_{CBO}$	-	100	$\mu\text{A}$
Collector Emitter Cutoff Current at $V_{CE} = 420\text{ V}$	$I_{CEO}$	-	100	$\mu\text{A}$
Emitter Base Cutoff Current at $V_{EB} = 10\text{ V}$	$I_{EBO}$	-	100	$\mu\text{A}$
Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	700	-	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	420	-	V
Emitter Base Breakdown Voltage at $I_E = 100\text{ }\mu\text{A}$	$V_{(BR)EBO}$	10	-	V
Collector Emitter Saturation Voltage at $I_C = 50\text{ mA}$ , $I_B = 10\text{ mA}$	$V_{CE(sat)}$	-	1.05	V
Base Emitter Saturation Voltage at $I_C = 50\text{ mA}$ , $I_B = 10\text{ mA}$	$V_{BE(sat)}$	-	1.55	V
Transition Frequency at $V_{CE} = 10\text{ V}$ , $I_C = 50\text{ mA}$ , $f = 1\text{ MHz}$	$f_T$	5	-	MHz
Storage Time at UI9600, $I_C = 100\text{ mA}$	$t_s$	-	3	$\mu\text{s}$
Rise Time at UI9600, $I_C = 100\text{ mA}$	$t_r$	-	1	$\mu\text{s}$
Fall Time at UI9600, $I_C = 100\text{ mA}$	$t_f$	-	1	$\mu\text{s}$

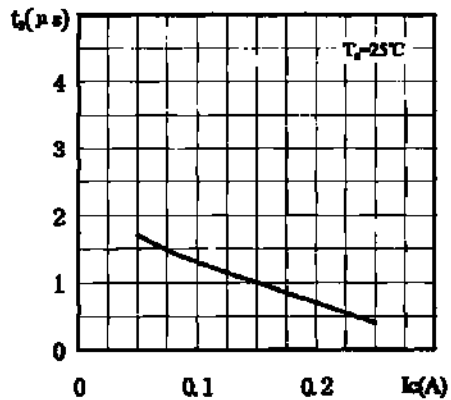
$V_{CE(sat)}$ - $I_C$  Characteristics(Typical)



$V_{BE(sat)}$ - $I_C$  Characteristics(Typical)



$t_r$ - $I_C$  Characteristics(Typical)

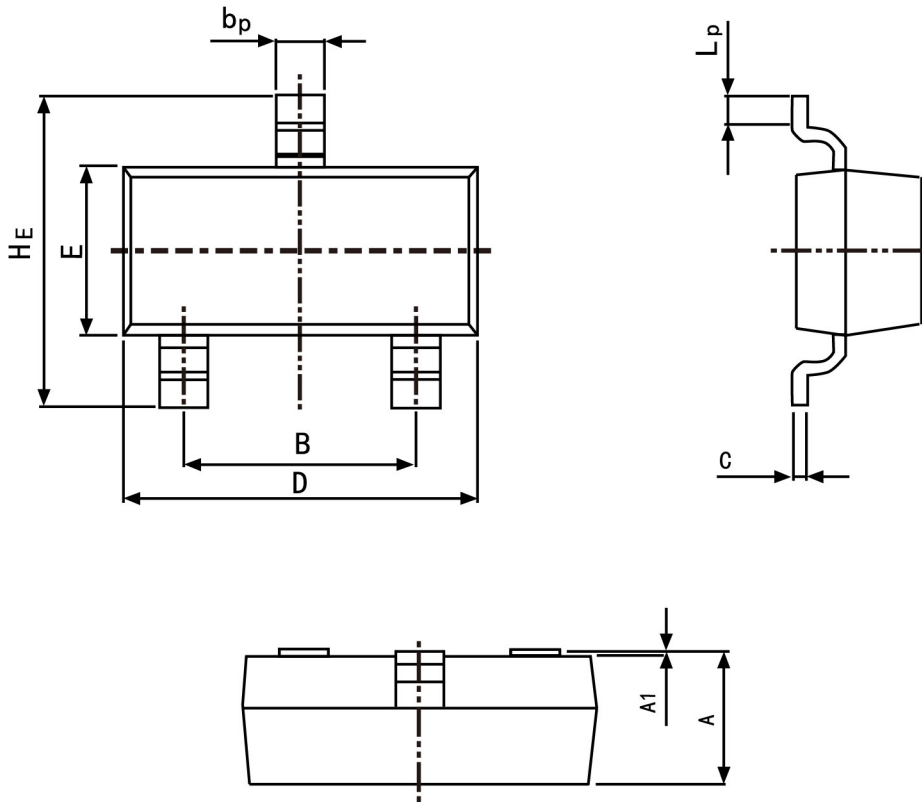




## PACKAGE OUTLINE

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
$A_1$	0.100	0.013
$L_p$	0.20	0.50