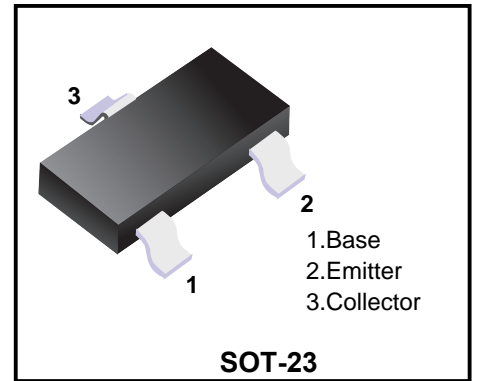


NPN Transistors



Features

- High current gain bandwidth product.
- power dissipation.(PC=200mW)

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V _{CB0}	30	V
Collector to Emitter Voltage	V _{CEO}	15	V
Emitter to Base Voltage	V _{EBO}	5	V
Collector Current to Continuous	I _c	50	mA
Collector Power Dissipation	P _c	200	mW
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to 150	°C

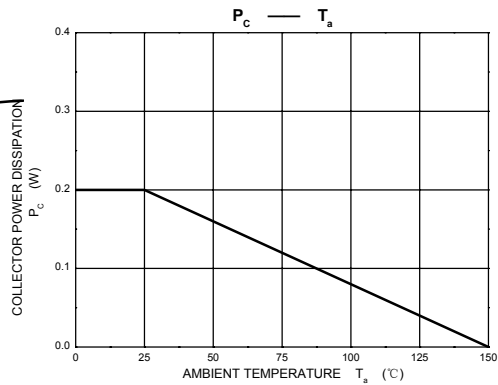
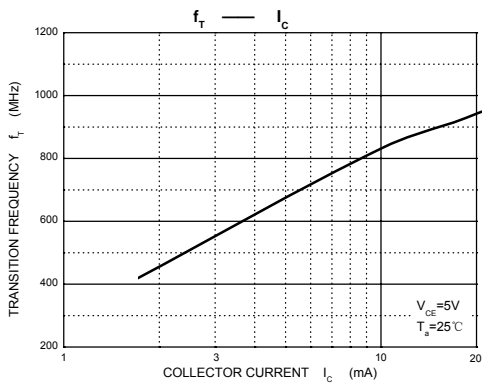
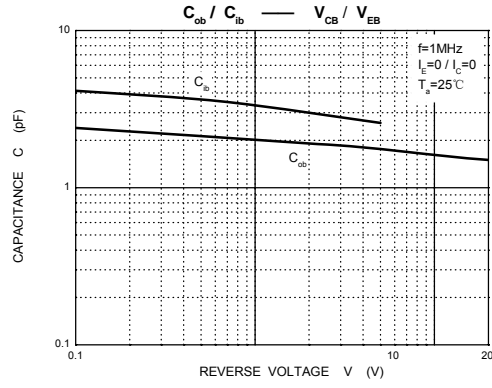
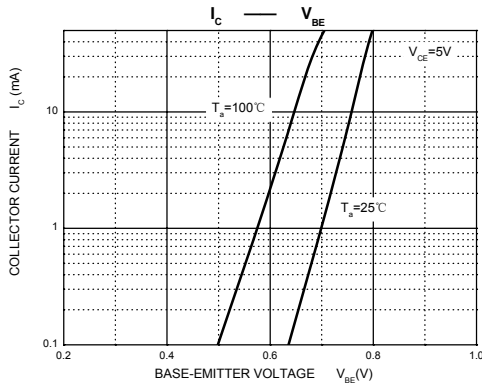
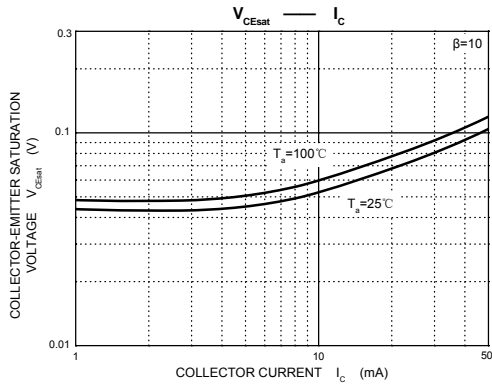
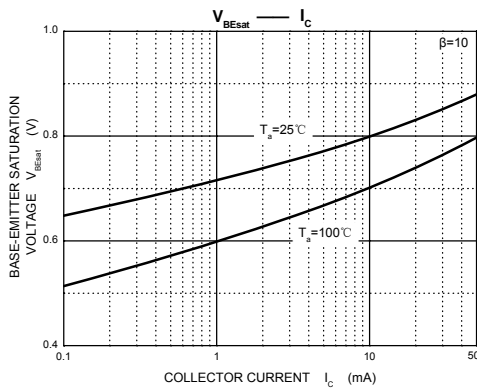
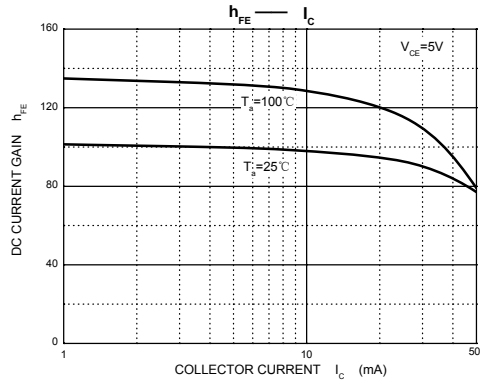
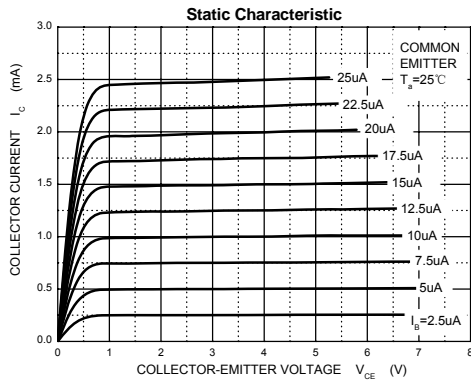
Electrical Characteristics (Ta=25°C unless otherwise specified.)

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector to base breakdown voltage	V _{(BR)CBO}	I _c = 100 uA, I _E =0	30			V
Collector to emitter breakdown voltage	V _{(BR)CEO}	I _c = 1mA, I _B =0	15			V
Emitter to base breakdown voltage	V _{(BR)EBO}	I _E =100 uA, I _c =0	5			V
Collector cut to off current	I _{CBO}	V _{CB} =12V, I _E =0			0.05	uA
Emitter cut to off current	I _{EBO}	V _{EB} = 3V, I _c =0			0.1	uA
DC current gain	h _{FE}	V _{CE} =5V, I _c = 1mA	70		190	
Collector to emitter saturation voltage	V _{CE(sat)}	I _c =10mA, I _B = 1mA			0.5	V
Base to emitter saturation voltage	V _{BE(sat)}	I _c =10mA, I _B = 1mA			1.4	V
Transition frequency	f _r	V _{CE} =5V, I _c = 5mA, f=400MHz	600			MHz

hFE Classification

Type	S9018-L	S9018-H
Range	70-105	105-190
Marking	J8	

Typical Characteristics



Ordering information

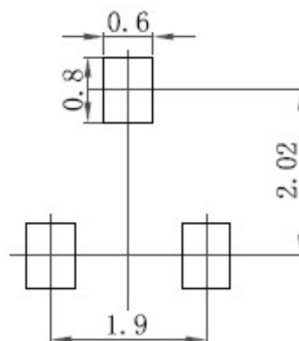
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



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