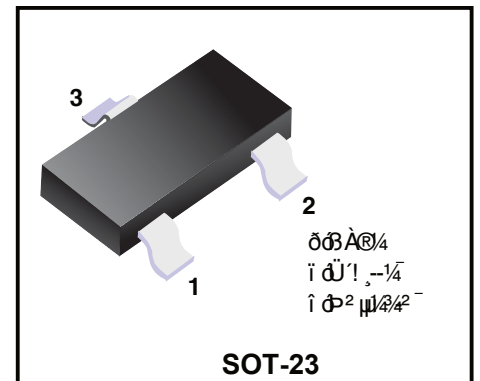


NPN Transistors

Features

- Collector Current: $I_c=0.5A$



Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	V _{CB0}	40	V
Collector-Emitter Voltage	V _{CEO}	25	V
Emitter-Base Voltage	V _{EB0}	5	V
Collector Current -Continuous	I _c	0.5	A
Collector Dissipation	P _c	0.3	W
Junction Temperature	T _j	150	°C
Storage Temperature	T _{stg}	-55 to 150	°C

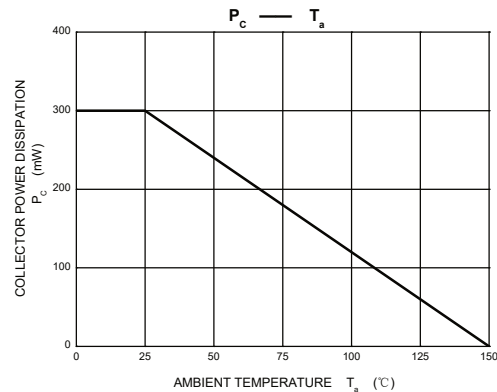
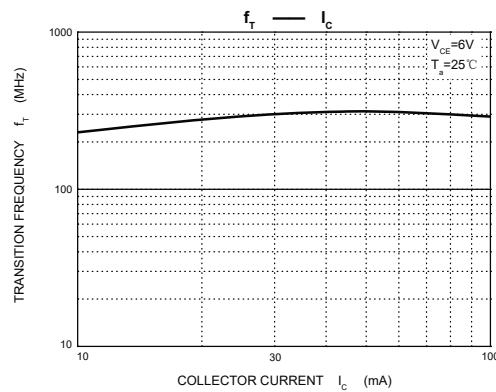
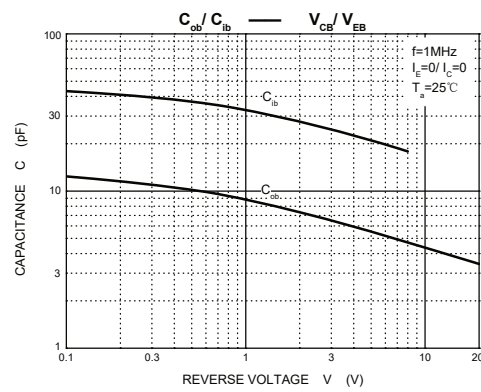
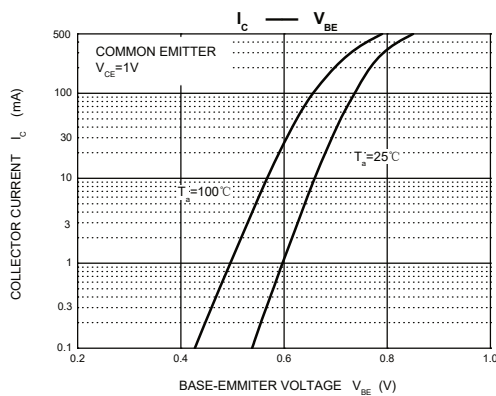
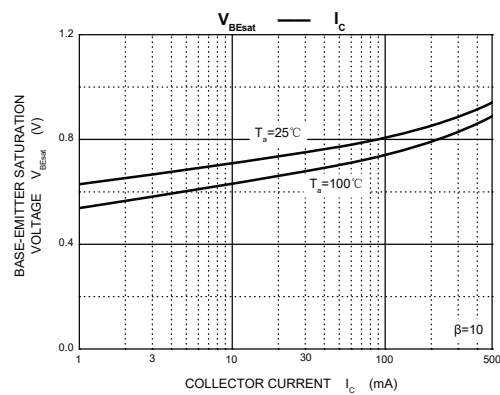
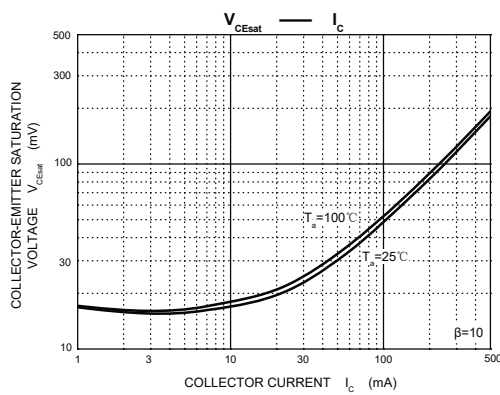
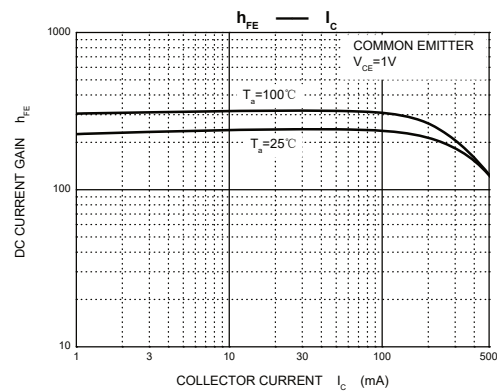
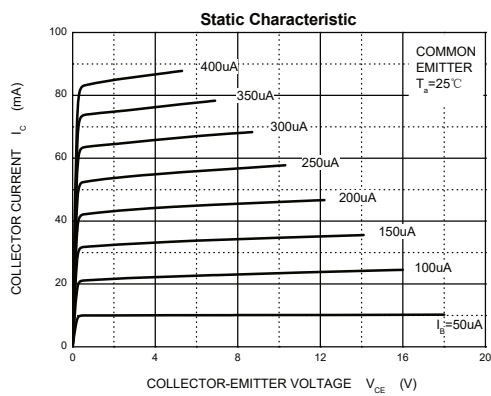
Electrical Characteristics (Ta=25°C unless otherwise specified.)

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{CB0}	I _c = 100 μ A, I _E = 0	40			V
Collector-emitter breakdown voltage	V _{CEO}	I _c = 1mA, I _B = 0	25			V
Emitter-base Breakdown voltage	V _{EB0}	I _E = 100 μ A, I _C = 0	5			V
Collector-base cut-off current	I _{CB0}	V _{CB} = 40 V, I _E = 0			0.1	μ A
Collector-emitter cut-off current	I _{CEO}	V _{CE} = 20 V, I _B = 0			1	μ A
Emitter-base cut-off current	I _{EB0}	V _{EB} = 5 V, I _C = 0			0.1	μ A
DC current gain	h _{FE}	V _{CE} = 1 V, I _c = 50 mA	120		400	
		V _{CE} = 1 V, I _c = 500 mA	50			
Collector-emitter saturation voltage	V _{CE(sat)}	I _c = 500 mA, I _B = 50 mA			0.6	V
Base-emitter saturation voltage	V _{BE(sat)}	I _c = 500 mA, I _B = 50 mA			1.2	V
Transition frequency	f _T	V _{CE} = 6 V, I _c = 20 mA, f = 30 MHz	150			MHz

hFE Classification

Type	S8050	S8050-L	S8050-H	S8050-J
Range	200-350	120-200	144-202	300-400
Marking	J3Y			

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

