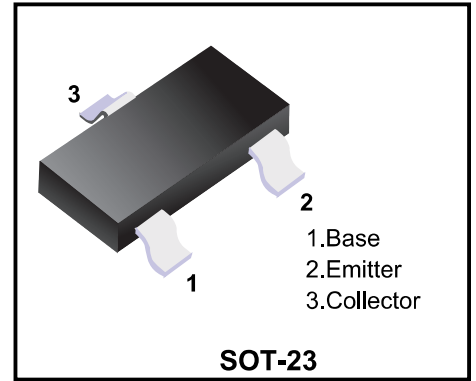


PNP Silicon Epitaxial Planar Transistor

The transistor is subdivided into three groups Q, R and S according to its DC current gain.

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


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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	60	V
Collector Current	$-I_C$	150	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_s	-55 to +150	$^\circ\text{C}$

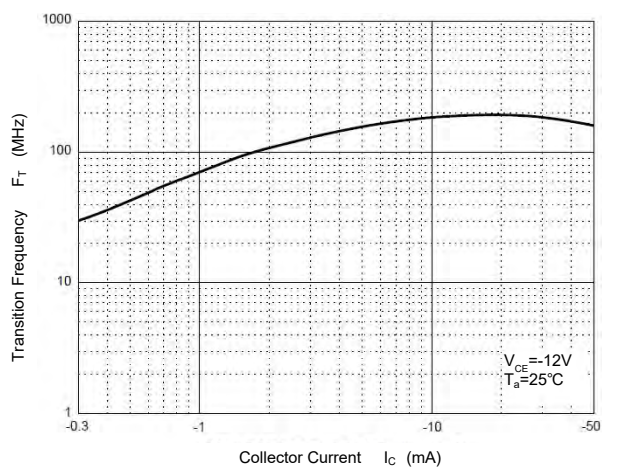
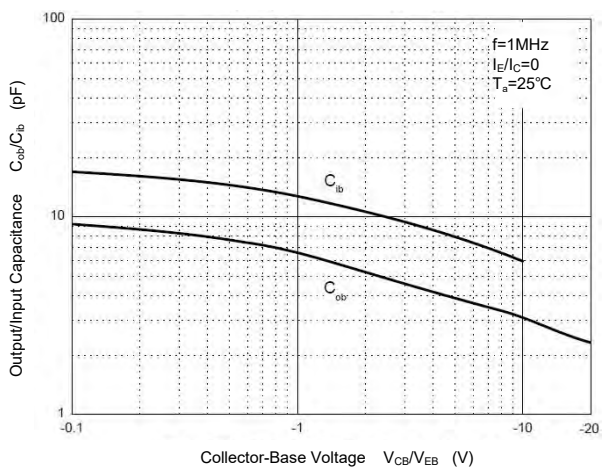
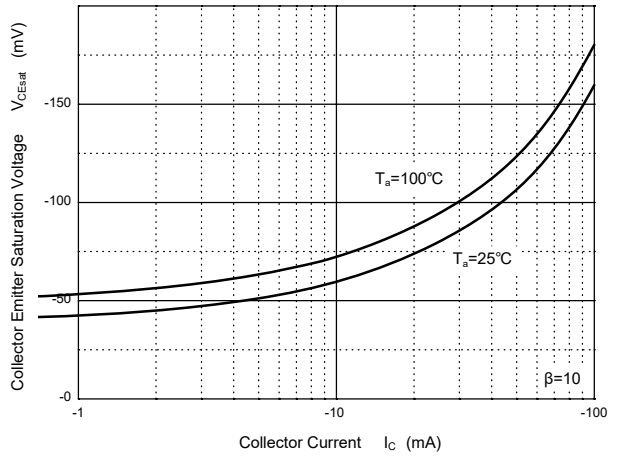
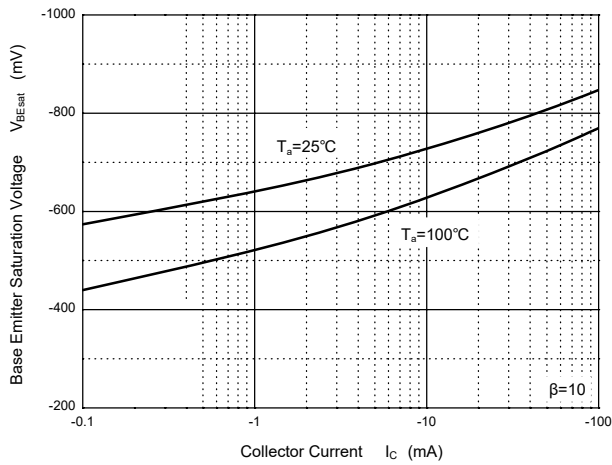
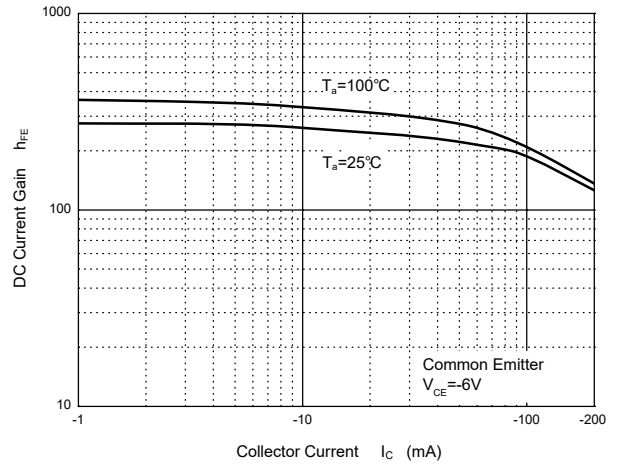
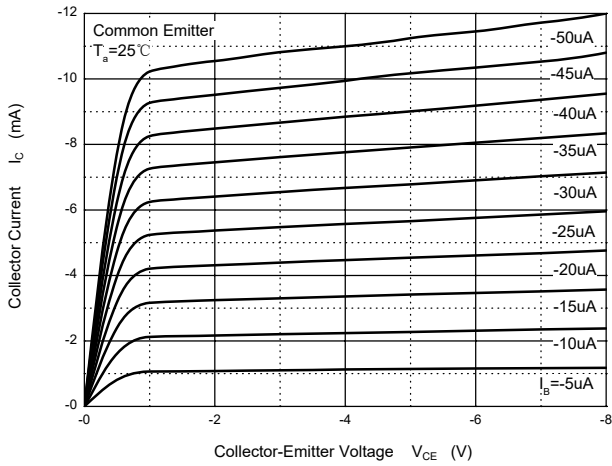
Characteristics at $T_{amb}=25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Max.	Unit	
DC Current Gain at $-V_{CE}=6\text{V}$, $-I_C=1\text{mA}$	Q	h_{FE}	120	270	-
	R	h_{FE}	180	390	-
	S	h_{FE}	270	560	-
Collector Cutoff Current at $-V_{CB}=60\text{V}$	$-I_{CBO}$	-	0.1	μA	
Emitter Cutoff Current at $-V_{EB}=6\text{V}$	$-I_{EBO}$	-	0.1	μA	
Collector Saturation Voltage at $-I_C=50\text{mA}$, $-I_B=5\text{mA}$	$-V_{CE(sat)}$	-	0.5	V	
Collector Base Breakdown Voltage at $-I_C=50\mu\text{A}$	$-V_{(BR)CBO}$	60	-	V	
Collector Emitter Breakdown Voltage at $-I_C=1\text{mA}$	$-V_{(BR)CEO}$	50	-	V	
Emitter Base Breakdown Voltage at $-I_E=50\mu\text{A}$	$-V_{(BR)EBO}$	6	-	V	
Transition Frequency at $-V_{CE}=12\text{V}$, $-I_C=2\text{mA}$, $f=30\text{MHz}$	f_T	120	-	MHz	

 h_{FE} Classification

Classification	Q	R	S
Range	120-270	180-390	270-560
Marking	FQ	FR	FS

Typical Characteristics



Ordering information

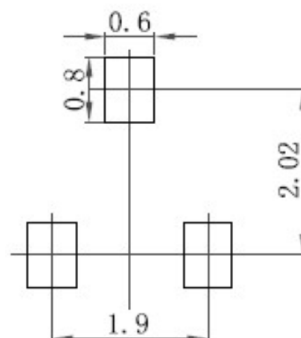
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

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



Disclaimer

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