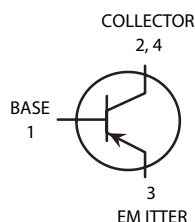


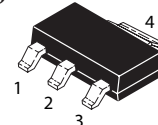
PNP Epitaxial Planar Transistor

(Pb) Lead(Pb)-Free



SOT-223

1.BASE
2.COLLECTOR
3.EMITTER
4.COLLECTOR



ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

Rating	Symbol	Value	Unit
Collector to Base Voltage	V_{CBO}	-160	V
Collector to Emitter Voltage	V_{CEO}	-150	V
Collector to Base Voltage	V_{EBO}	-5	V
Collector Current	$I_C(\text{DC})$	-600	A
Total Device Dissipation $T_a=25^{\circ}\text{C}$	P_D	1.5	W
Junction Temperature	T_j	+150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	-55 to +150	$^{\circ}\text{C}$

*Device mounted in a typical manner on a P.C.B with copper 4 inches x 4 inches(min).

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Max	Max	Unit
Collector-Base Breakdown Voltage $I_C=-100\mu\text{A}, I_E=0$	BV_{CBO}	-160	-	-	V
Collector-Emitter Breakdown Voltage ⁽¹⁾ $I_C=-1\text{mA}, I_B=0$	BV_{CEO}	-150	-	-	V
Emitter-Base Breakdown Voltage $I_E=-10\mu\text{A}, I_C=0$	BV_{EBO}	-5	-	-	V
Collector Cut-Off Current $V_{CB}=-120\text{V}, I_E=0$	I_{CBO}	-	-	-50	nA
Emitter-Cut-Off Current $V_{EB}=-3\text{V}, I_C=0$	I_{EBO}	-	-	-50	nA

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
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ON CHARACTERISTICS⁽¹⁾

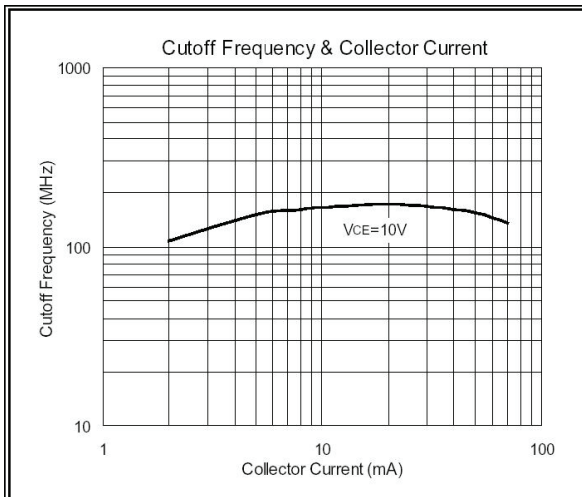
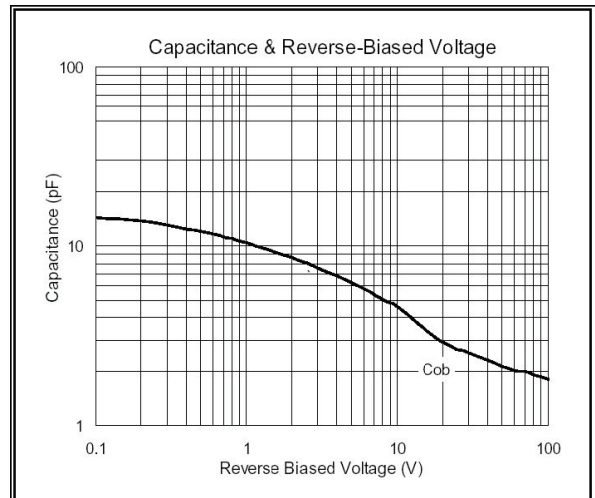
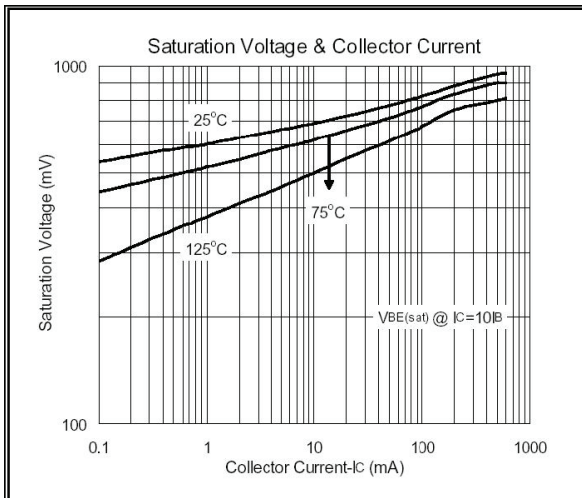
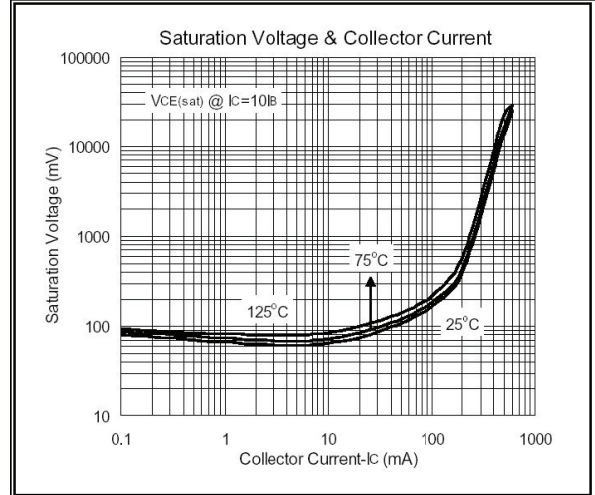
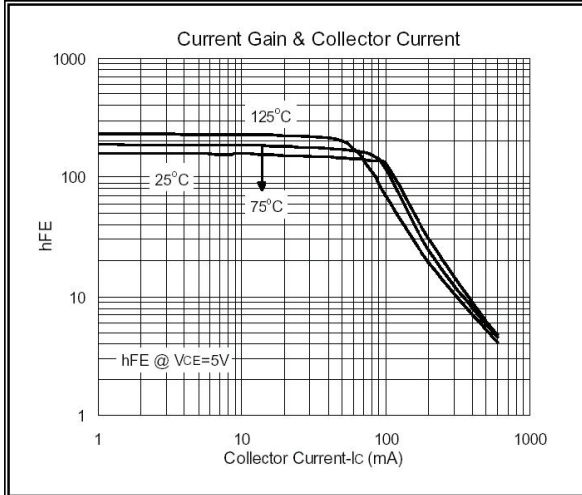
DC Current Gain $V_{CE}=-5\text{V}, I_C=-1\text{mA}$ $V_{CE}=-5\text{V}, I_C=-10\text{mA}$ $V_{CE}=-5\text{V}, I_C=-50\text{mA}$	h_{FE1} h_{FE2} h_{FE3}	50 80 50	- 160 -	- 400 -	-
Collector-Emitter Saturation Voltage $I_C=-10\text{mA}, I_B=-1\text{mA}$ $I_C=-50\text{mA}, I_B=-5\text{mA}$	$V_{CE(sat)1}$ $V_{CE(sat)2}$	- -	- -	-200 -500	mV
Base-Emitter Saturation Voltage $I_C=-10\text{mA}, I_B=-1\text{mA}$ $I_C=-50\text{mA}, I_B=-5\text{mA}$	$V_{BE(sat)1}$ $V_{BE(sat)2}$	- -	- -	-1 -1	V

DYNAMIC CHARACTERISTICS

Transition Frequency $V_{CE}=-10\text{V}, I_C=-10\text{mA}, f=100\text{MHz}$	f_T	120	-	300	MHz
Output Capacitance $V_{CB}=-10\text{V}, I_E=0, f=1\text{MHz}$	C_{ob}	-	-	6	pF

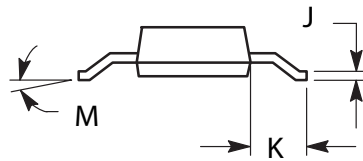
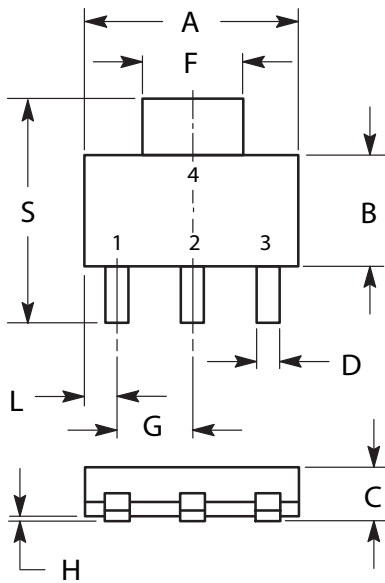
CLASSIFICATION OF h_{FE}

Rank	A	N	C
Range	80-200	100-240	160-400



SOT-223 Outline Dimensions

unit:mm



DIM	MILLIMETERS	
	MIN	MAX
A	6.30	6.70
B	3.30	3.70
C	1.50	1.75
D	0.60	0.89
F	2.90	3.20
G	2.20	2.40
H	0.020	0.100
J	0.24	0.35
K	1.50	2.00
L	0.85	1.05
M	0°	10°
S	6.70	7.30