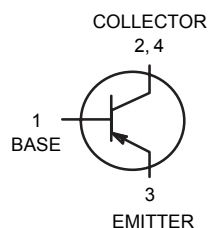
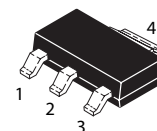


PNP Silicon Planar Epitaxial Transistor

(Pb) Lead(Pb)-Free



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



SOT-223

ABSOLUTE MAXIMUM RATINGS (T_A=25°C)

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V _{CEO}	-80	V
Collector-Base Voltage	V _{CB0}	-100	V
Emitter-Base Voltage	V _{EBO}	-5	V
Collector Current (DC)	I _{C(DC)}	1	A
Total Device Dissipation T _A =25°C	P _D	1.5	W
Junction Temperature	T _j	150	°C
Storage, Temperature	T _{stg}	-65 to +150	°C

Device Marking

BCP53=BCX53

ELECTRICAL CHARACTERISTICS

Characteristics	Symbol	Min	Typ	Max	Unit
Collector-Emitter Breakdown Voltage (I _C =-1mA, I _B =0)	V _{(BR)CEO}	-80	-	-	V
Collector-Base Breakdown Voltage (I _C =-100μA, I _E =0)	V _{(BR)CBO}	-100	-	-	V
Emitter-Base Breakdown Voltage (I _E =-10 μA, I _C =0)	V _{(BR)EBO}	-5	-	-	V
Collector-Emitter Cutoff Current (V _{CB} =-30V, I _E =0)	I _{CBO}	-	-	-100	nA
Emitter-Base Cutoff Current (V _{EB} =-5V, I _C =0)	I _{EBO}	-	-	-100	nA

ON CHARACTERISTICS⁽¹⁾

DC Current Gain ($V_{CE} = -2V, I_C = 5mA$) ($V_{CE} = -2V, I_C = 150mA$) ($V_{CE} = -2V, I_C = 500mA$)	h_{FE1} h_{FE2} h_{FE3}	63 63 40	- - -	- 250 -	- - -
Collector-Emitter Saturation Voltages ($I_C = -500mA, I_B = -50mA$)	$V_{CE(sat)}$	-	-	-500	mV
Base-Emitter ON Voltages ($V_{CE} = -2V, I_C = -500mA$)	$V_{BE(ON)}$	-	-	-1.0	V

DYNAMIC CHARACTERISTICS

Transition frequency ($V_{CE} = -5V, I_C = 10mA, f = 100MHz$)	ft	-	50	-	MHz
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Note: 1. Pulse Test : Pulse Width $\leq 380\mu s$, Duty Cycle $\leq 2\%$.

CLASSIFICATION OF h_{FE2}

Rank	A	B
Range	63-160	100-250

CHARACTERISTICS CURVE

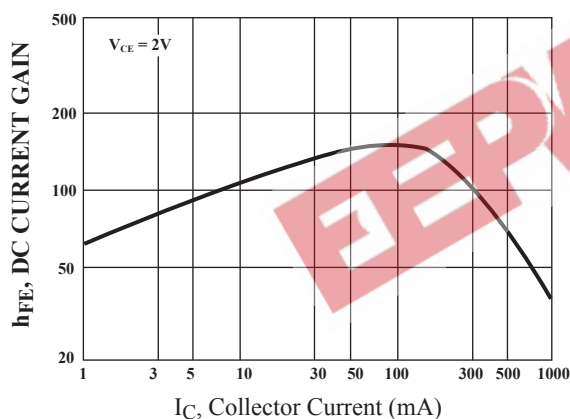


Fig.1 Current Gain & Collector Current

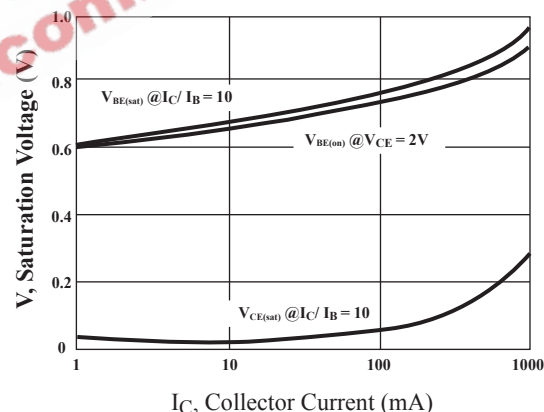


Fig.2 Saturation Voltage, ON Voltage & Current Gain

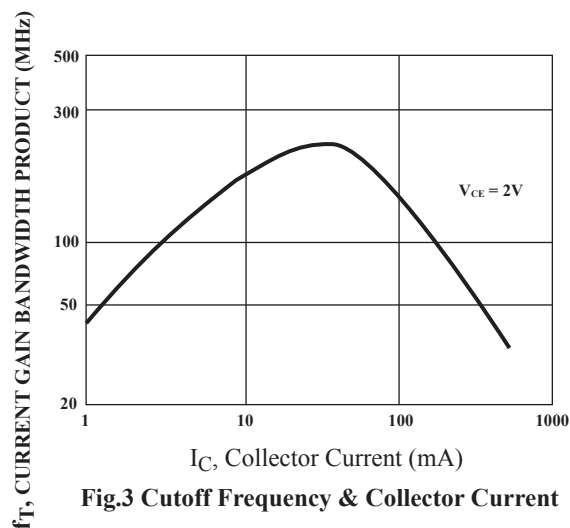
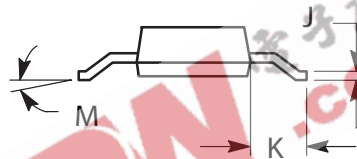
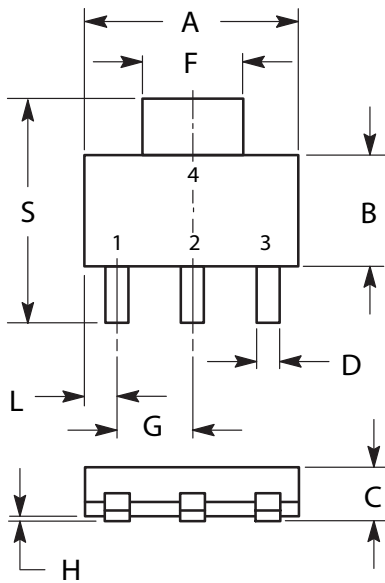


Fig.3 Cutoff Frequency & Collector Current

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