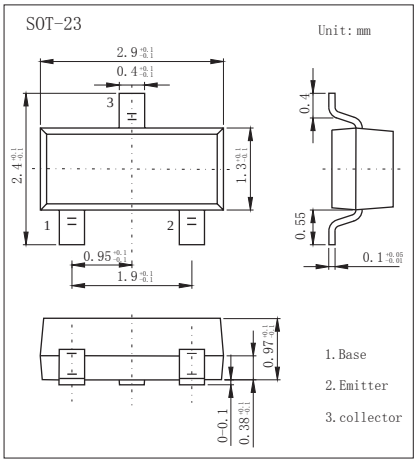
PNP Transistors

MMBTA94



■ Features

- ● High Breakdown Voltage
- ●Complement to MMBTA44

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V_{CBO}	-400	V
Collector - Emitter Voltage	V_{CEO}	-400	
Emitter - Base Voltage	V_{EBO}	-5	
Collector Current - Continuous	I_C	-200	mA
Collector Current -Pulsed	I_{CM}	-300	
Collector Power Dissipation	P_C	350	mW
Thermal Resistance From Junction To Ambient	$R_{\Theta JA}$	150	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature range	T_{stg}	-55 to 150	

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V_{CBO}	I_C= -100 μA, I_E=0	-400			V
Collector- emitter breakdown voltage	V_{CEO}	I_C= -1 mA, I_B=0	-400			
Emitter - base breakdown voltage	V_{EBO}	I_E= -100 μ A, I_C=0	-5			
Collector-base cut-off current	I_{CBO}	V_{CB}= -400 V , I_E=0			-100	nA
Emitter cut-off current	I_{EBO}	V_{EB}= -4V , I_C=0			-100	
Collector-emitter saturation voltage	$V_{CE(sat)1}$	I_C=-10 mA, I_B=-1mA			-0.2	V
	$V_{CE(sat)2}$	I_C=-50 mA, I_B=-5mA			-0.3	
Base - emitter saturation voltage	$V_{BE(sat)}$	I_C= -10mA, I_B=- 1mA			-0.75	
DC current gain	$h_{FE(1)}$	V_{CE}= -10V, I_C= -10mA	80		300	
	$h_{FE(2)}$	V_{CE}= -10V, I_C= -1mA	70			
	$h_{FE(3)}$	V_{CE}= -10V, I_C= -100mA	40			
	$h_{FE(4)}$	V_{CE}= -10V, I_C= -50mA	40			
Transition frequency	f_T	V_{CE}= -20V, I_C= 10mA,f=30MHz	50			MHz

■ Classification of $h_{fe(1)}$

Type	MMBTA94	MMBTA94-L
Range	80-300	100-200
Marking	4D	

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■ Typical Characterisitics