



SOT-23 Plastic-Encapsulate Transistors

MMBTA94 TRANSISTOR (PNP)

FEATURES

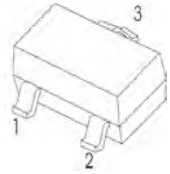
- High Breakdown Voltage

MARKING:4D

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	-400	V
V _{CEO}	Collector-Emitter Voltage	-400	V
V _{EBO}	Emitter-Base Voltage	-5	V
I _C	Collector Current -Continuous	-200	mA
I _{CM}	Collector Current -Pulsed	-300	mA
P _C	Collector Power Dissipation	350	mW
R _{θJA}	Thermal Resistance From Junction To Ambient	357	°C/W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~+150	°C

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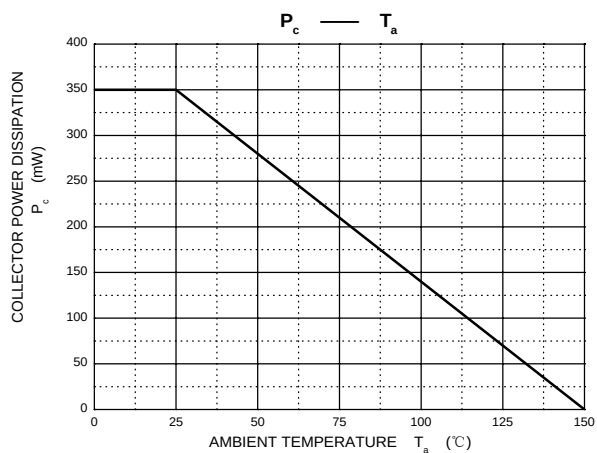
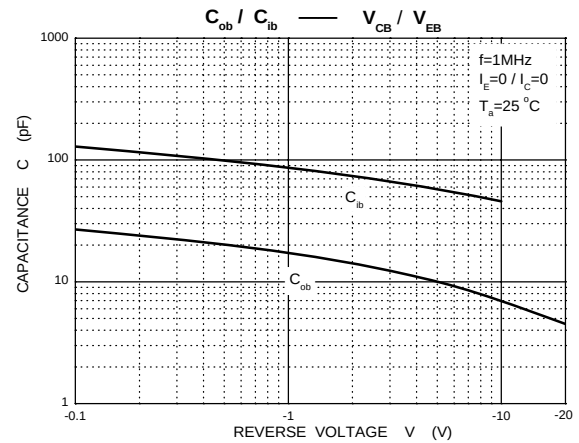
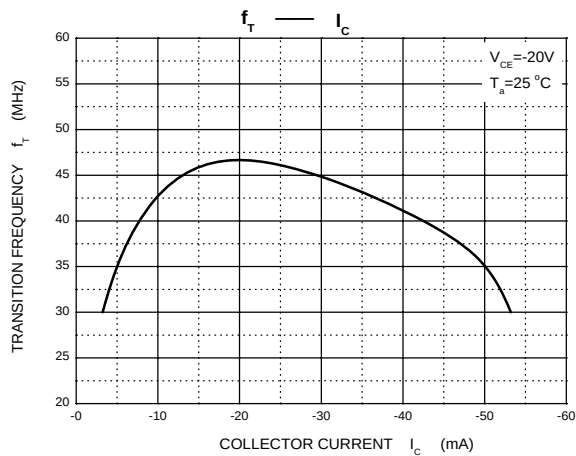
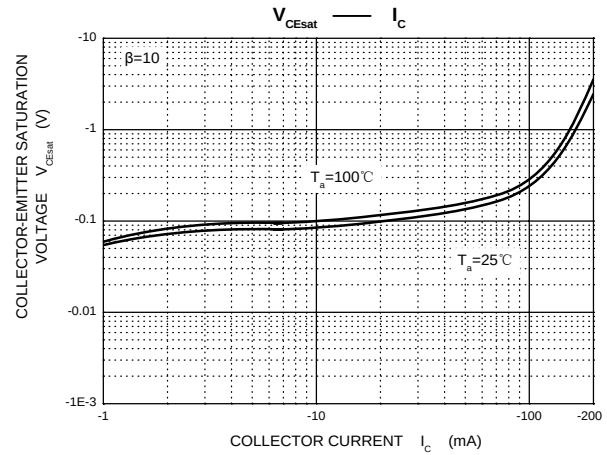
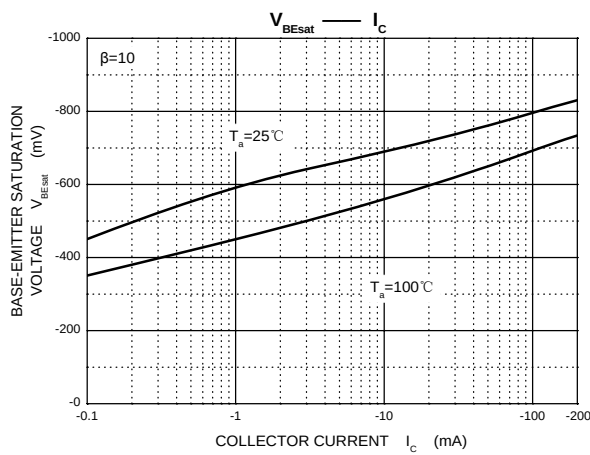
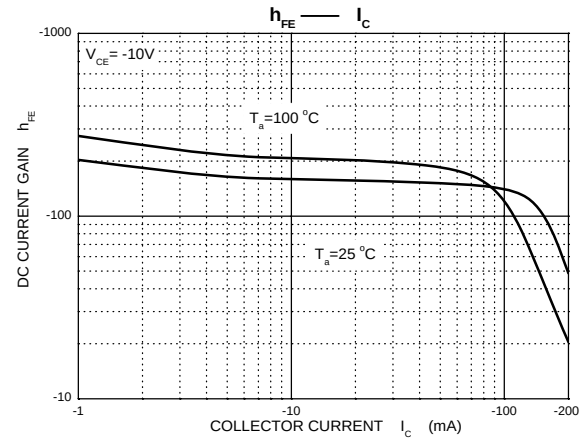
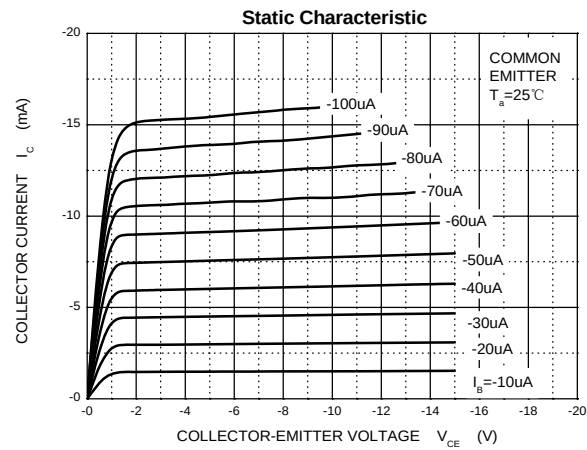


1. BASE
2. EMITTER
3. COLLECTOR

ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-100μA, I _E =0	-400			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1mA, I _B =0	-400			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-100μA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-400V, I _E =0			-0.1	μA
Collector cut-off current	I _{CEO}	V _{CE} =-400V, I _B =0			-5	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-4V, I _C =0			-0.1	μA
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			
Collector-emitter saturation voltage	V _{CE(sat)1}	I _C =-10mA, I _B =-1mA			-0.2	V
	V _{CE(sat)2}	I _C =-50mA, I _B =-5mA			-0.3	V
Base-emitter saturation voltage	V _{BE(sat)}	I _C =-10mA, I _B =-1mA			-0.75	V
Transition frequency	f _T	V _{CE} =-20V, I _C =-10mA, f=30MHz	50			MHz

Typical Characteristics

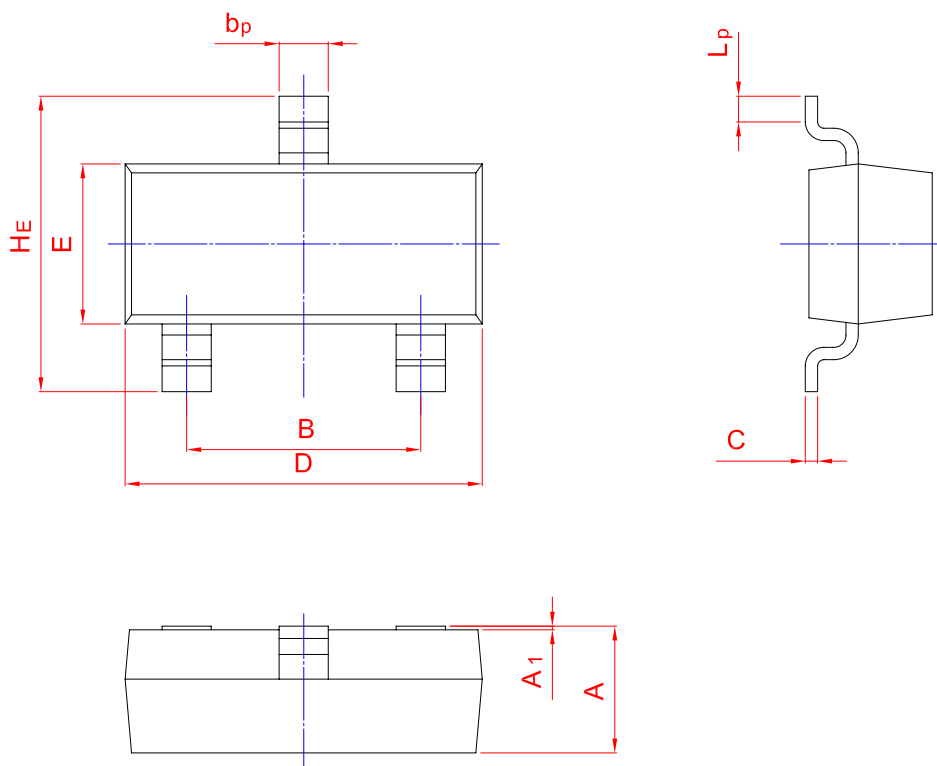
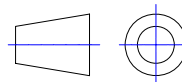




PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

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UNIT	A	B	bp	C	D	E	HE	A1	Lp
mm	1.40 0.95	2.04 1.78	0.50 0.35	0.19 0.08	3.10 2.70	1.65 1.20	3.00 2.20	0.100 0.013	0.50 0.20