

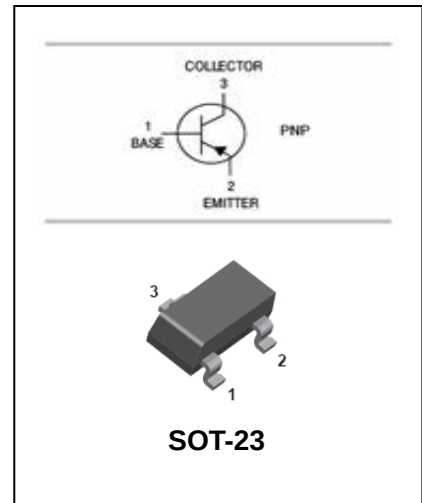
PNP High Voltage Amplifier

MMBTA94

FEATURES

- Collector-Emitter voltage: $V_{CEO}=-400V$.
- Collector dissipation: $P_C=350mW$.
- Low collector-emitter saturation voltage.

HF



APPLICATIONS

- High voltage switch.
- Telephone switch.

ORDERING INFORMATION

Type No.	Marking	Package Code
MMBTA94	4D	SOT-23

MAXIMUM RATING @ $T_a=25^{\circ}C$ unless otherwise specified

Symbol	Parameter	Value	UNIT
V_{CBO}	collector-base voltage	-400	V
V_{CEO}	collector-emitter voltage	-400	V
V_{EBO}	emitter-base voltage	-6	V
I_C	collector current (DC)	-0.3	A
P_C	Collector dissipation	0.35	W
T_J, T_{STG}	junction and storage temperature	-40 to +150	$^{\circ}C$

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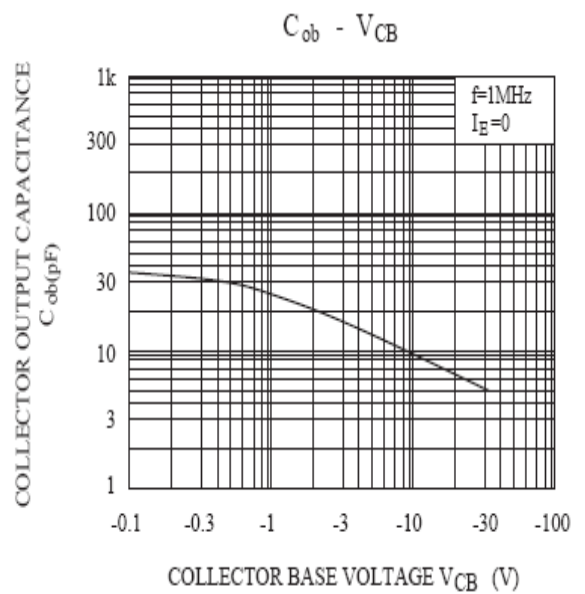
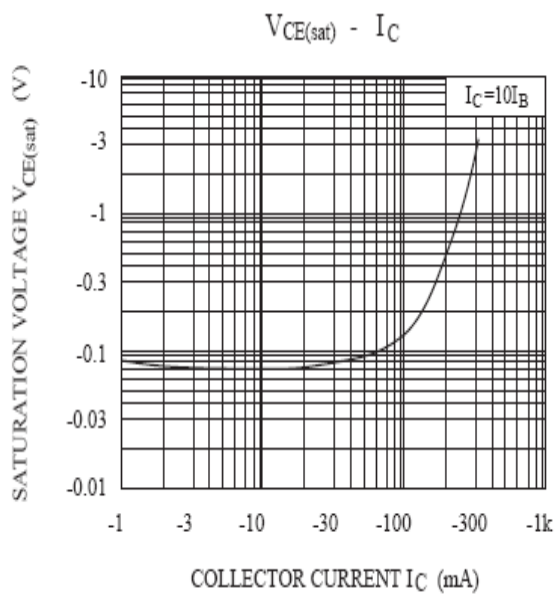
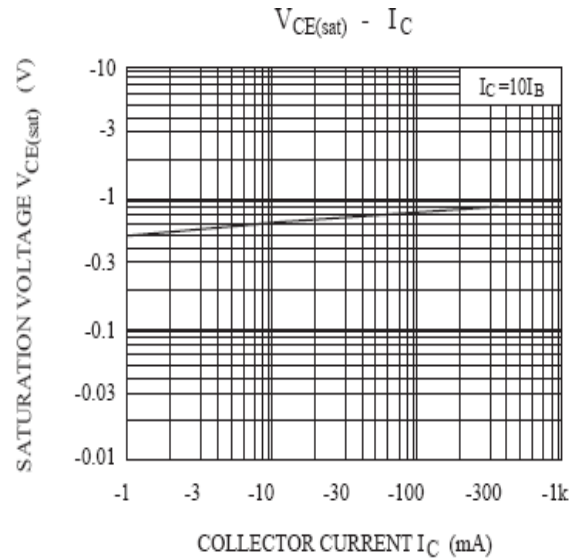
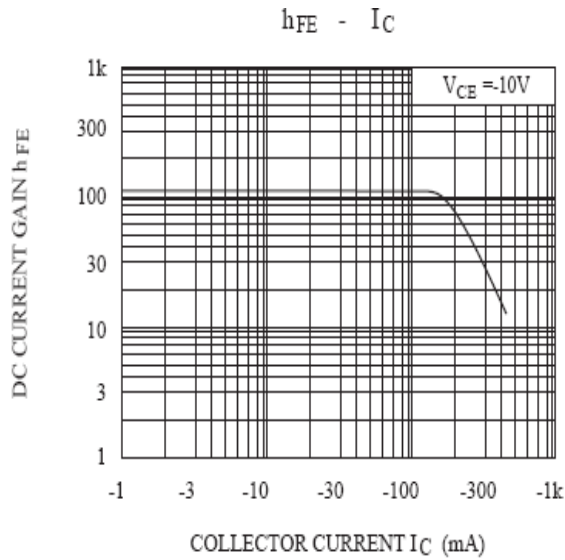
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Symbol	Parameter	Test conditions	MIN.	MAX.	UNIT
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=-100\mu A, I_E=0$	-400		
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=-1mA, I_B=0$	-400		
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=-10\mu A, I_C=0$	-6		
I_{CBO}	collector cut-off current	$I_E=0; V_{CB}=-350V$	-	-0.1	μA
I_{CES}	collector cut-off current	$V_{BE}=0; V_{CE}=-350V$	-	-0.5	μA
I_{EBO}	emitter cut-off current	$I_C=0; V_{EB}=-4V$	-	-0.1	μA
h_{FE}	DC current gain	$V_{CE}=-10V; I_C=-1mA$ $V_{CE}=-10V; I_C=-10mA$ $V_{CE}=-10V; I_C=-50mA$ $V_{CE}=-10V; I_C=-100mA$	40 100 45 20	- 200 - -	
$V_{CE(sat)}$	Collector-emitter saturation voltage	$I_C=-1mA, I_B=-0.1mA$ $I_C=-10mA, I_B=-1mA$ $I_C=-50mA, I_B=-5mA$	-	-0.4 -0.5 -0.75	V
$V_{BE(sat)}$	Base-emitter saturation voltage	$I_C=-10mA; I_B=-1mA$	-	-0.75	V
C_{ob}	Collector output capacitance	$V_{CB}=-20V, I_E=0, f=1MHz$		7	pF

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TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



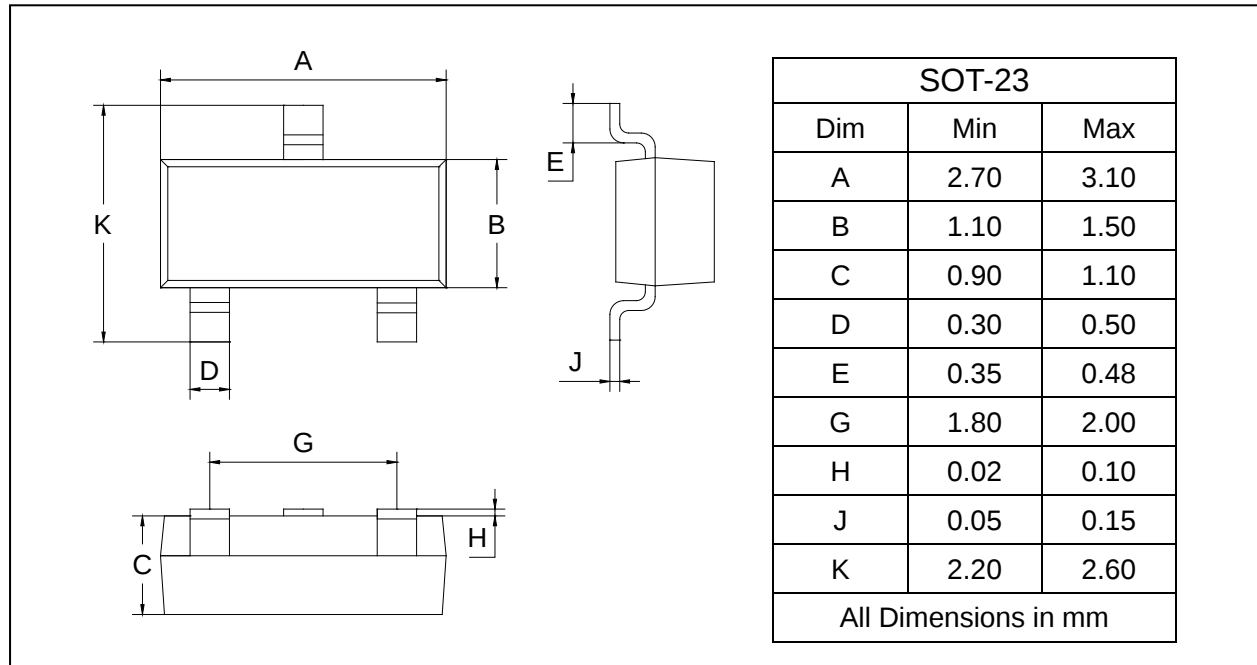
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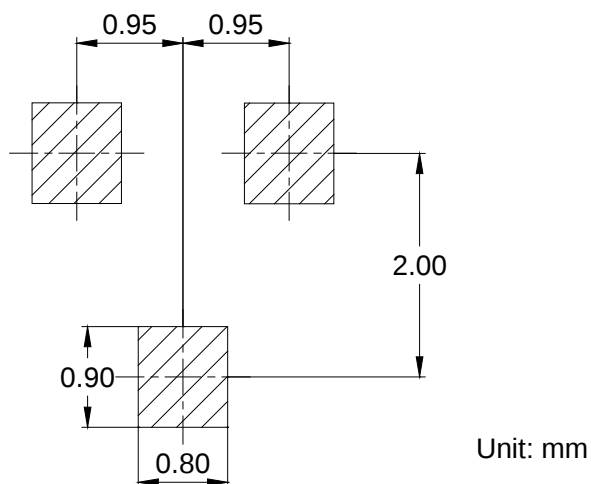
PACKAGE OUTLINE

Plastic surface mounted package

SOT-23



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
MMBTA94	SOT-23	3000 pcs / Tape & Reel