



MMBTA94

PNP SILICON TRANSISTOR

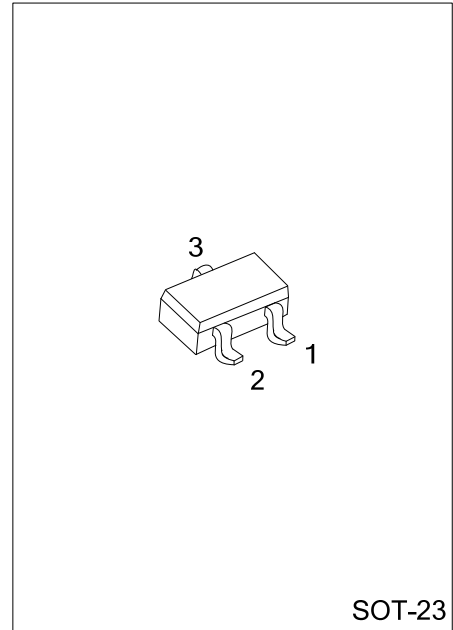
HIGH VOLTAGE TRANSISTOR

FEATURES

- * Collector-Emitter voltage: $V_{CE0}=-400V$
- * Collector Dissipation: $P_{C(MAX)}=350mW$
- * Low collector-Emitter saturation voltage

APPLICATIONS

- * Telephone switching
- * High voltage switch



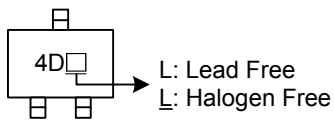
Lead-free: MMBTA94L
 Halogen-free: MMBTA94G

ORDERING INFORMATION

Ordering Number			Package	Pin Assignment			Packing
Normal	Lead Free	Halogen Free		1	2	3	
MMBTA94-AE3-R	MMBTA94L-AE3-R	MMBTA94G-AE3-R	SOT-23	E	B	C	Tape Reel

<p>MMBTA94L-AE3-R</p> <p>(1) Packing Type</p> <p>(2) Package Type</p> <p>(3) Lead Plating</p>	<p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23</p> <p>(3) G: Halogen Free, L: Lead Free, Blank: Pb/Sn</p>
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MARKING



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■ ABSOLUTE MAXIMUM RATING (Ta=25°C unless otherwise specified)

PARAMETER	SYMBOL	RATING	UNIT
Collector-Base Voltage	V _{CB0}	-400	V
Collector-Emitter Voltage	V _{CEO}	-400	V
Emitter-Base Voltage	V _{EBO}	-6	V
Collector Dissipation (Ta=25°C)	P _C	350	mW
Collector Current	I _C	-300	mA
Junction Temperature	T _J	+150	°C
Storage Temperature	T _{STG}	-40~+150	°C

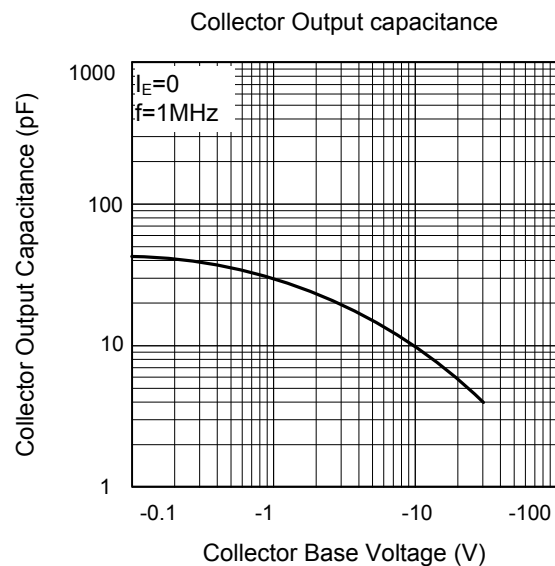
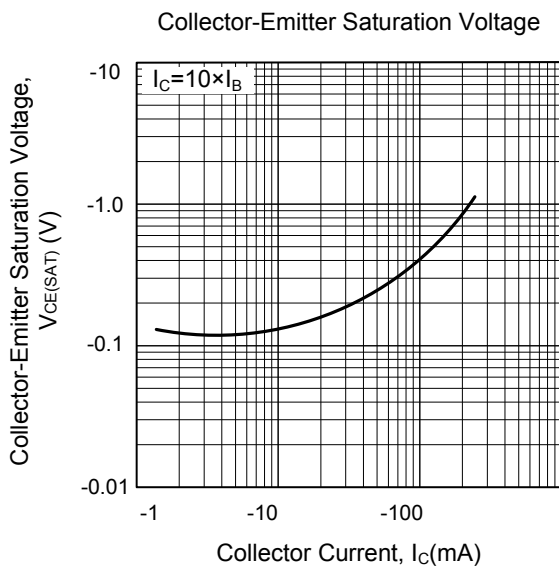
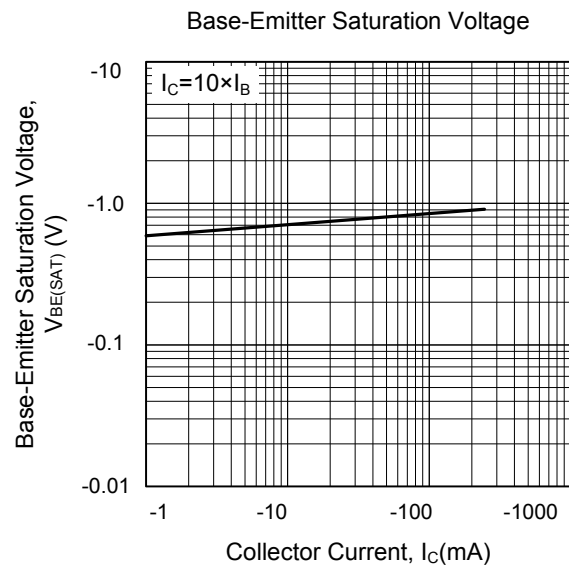
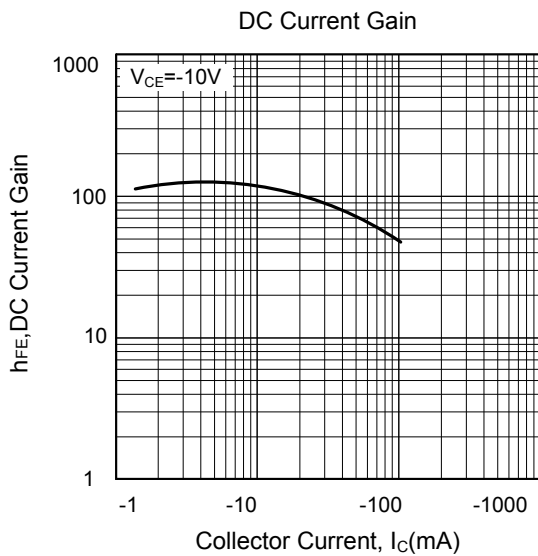
Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS (Ta=25°C, unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Collector-Base Breakdown Voltage	BV _{CB0}	I _C = -100μA, I _E = 0	-400			V
Collector-Emitter Breakdown Voltage	BV _{CEO}	I _C = -1mA, I _B = 0	-400			V
Collector-Emitter Breakdown Voltage	BV _{CES}	I _C = -100μA, V _{BE} = 0	-400			V
Emitter-Base Breakdown Voltage	BV _{EBO}	I _E = -100μA, I _C = 0	-5			V
Collector Cut-off Current	I _{CBO}	V _{CB} = -300V, I _E = 0			-100	nA
Collector Cut-off Current	I _{CES}	V _{CB} = -400V, V _{BE} = 0			-1	μA
Emitter Cut-off Current	I _{EBO}	V _{EB} = -4V, I _C = 0			100	nA
DC Current Gain (note)	h _{FE}	V _{CE} = -10V, I _C = -1mA	60			
		V _{CE} = -10V, I _C = -10mA	70		300	
		V _{CE} = -10V, I _C = -50mA	70			
		V _{CE} = -10V, I _C = -100mA	40			
Collector-Emitter Saturation Voltage	V _{CE(SAT)}	I _C = -10mA, I _B = -1mA			-0.20	V
		I _C = -50mA, I _B = -5mA			-0.5	V
Base-Emitter Saturation Voltage	V _{BE(SAT)}	I _C = -10mA, I _B = -1mA			-0.75	V
Output Capacitance	C _{ob}	V _{CB} = -20V, I _E = 0, f = 1MHz			7	pF

Note: Pulse test: PW < 300μs, Duty Cycle < 2%

■ TYPICAL CHARACTERISTICS



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