



UNISONIC TECHNOLOGIES CO., LTD

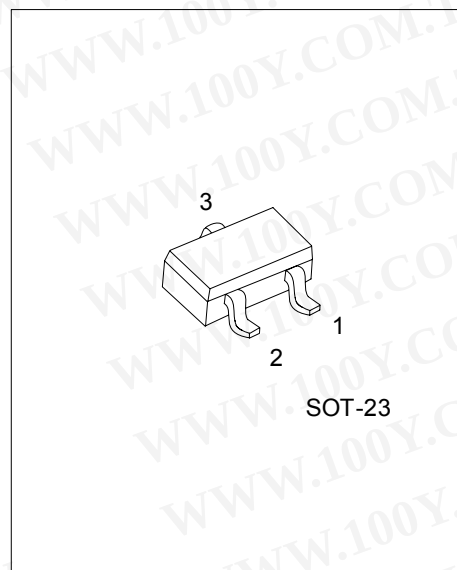
MMBTA56

PNP SILICON TRANSISTOR

AMPLIFIER TRANSISTOR

FEATURES

- * Collector-Emitter Voltage: $V_{CE0} = -80V$
- * Collector Dissipation: $P_D = 350mW$



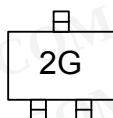
*Pb-free plating product number: MMBTA56L

ORDERING INFORMATION

Order Number		Package	Pin Assignment			Packing
Normal	Lead Free Plating		1	2	3	
MMBTA56-AE3-R	MMBTA56L-AE3-R	SOT-23	E	B	C	Tape Reel

MMBTA56L-AE3-R	(1)Packing Type	(1) R: Tape Reel
	(2)Package Type	(2) AE3: SOT-23
	(3)Lead Plating	(3) L: Lead Free Plating, Blank: Pb/Sn

MARKING



勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

MMBTA56

PNP SILICON TRANSISTOR

■ ABSOLUTE MAXIMUM RATINGS ($T_A=25^{\circ}\text{C}$)

PARAMETER	SYMBOL	RATINGS	UNIT
Collector-Base Voltage	V_{CBO}	-80	V
Collector-Emitter Voltage	V_{CEO}	-80	V
Emitter-Base Voltage	V_{EBO}	-4	V
Collector Current - Continuous	I_C	-500	mA
Total Device Dissipation(Note 1)	P_D	350	mW
Derate Above 25°C		2.8	mW/ $^{\circ}\text{C}$
Junction Temperature	T_J	+150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55 ~ +150	$^{\circ}\text{C}$

Note 1. Device mounted on FR-4=1.6×1.6×0.06 in

2. 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.

■ THERMAL DATA

PARAMETER	SYMBOL	MAX	UNIT
Thermal Resistance, Junction to Ambient	θ_{JA}	357	$^{\circ}\text{C}/\text{W}$

■ ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$, unless otherwise specified)

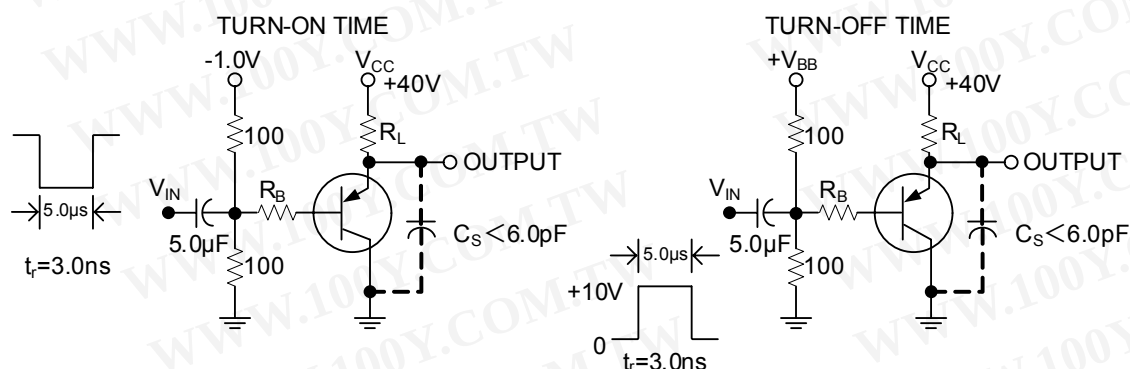
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-Emitter Breakdown Voltage (Note 1)	BV_{CEO}	$I_C=-1.0\text{mA}$, $I_B=0$	-80			V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E=-100\mu\text{A}$, $I_C=0$	-4			V
Collector Cutoff Current	I_{CES}	$V_{CE}=-60\text{V}$, $I_B=0$			-0.1	μA
Collector Cutoff Current	I_{CBO}	$V_{CB}=-80\text{V}$, $I_E=0$			-0.1	μA
ON CHARACTERISTICS						
DC Current Gain	h_{FE}	$I_C=-10\text{mA}$, $V_{CE}=-1\text{V}$ $I_C=-100\text{mA}$, $V_{CE}=-1\text{V}$	100 100			
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C=-100\text{mA}$, $I_B=-10\text{mA}$			-0.25	V
Base-Emitter on Voltage	$V_{BE(ON)}$	$I_C=-100\text{mA}$, $V_{CE}=-1\text{V}$			-1.2	V
SMALL-SIGNAL CHARACTERISTICS						
Current Gain Bandwidth Product (Note2)	f_T	$I_C=-10\text{mA}$, $V_{CE}=-2\text{V}$, $f=100\text{MHz}$	100			MHz

Note 1: Pulse test: $PW \leq 300\mu\text{s}$, Duty Cycle $\leq 2\%$

- 2: f_T is defined as the frequency at which $|h_{fe}|$ extrapolates to unity.

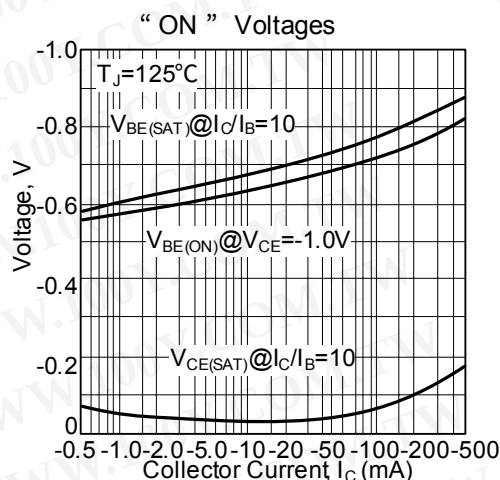
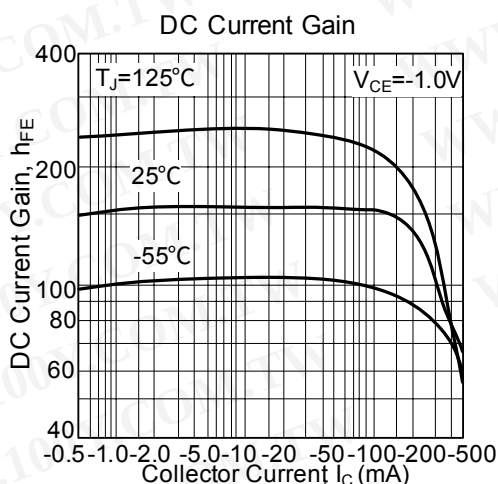
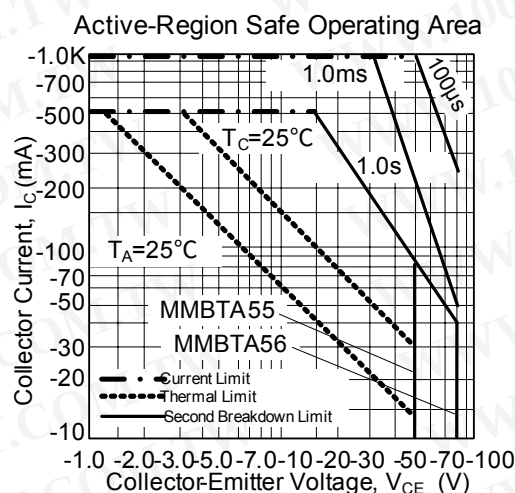
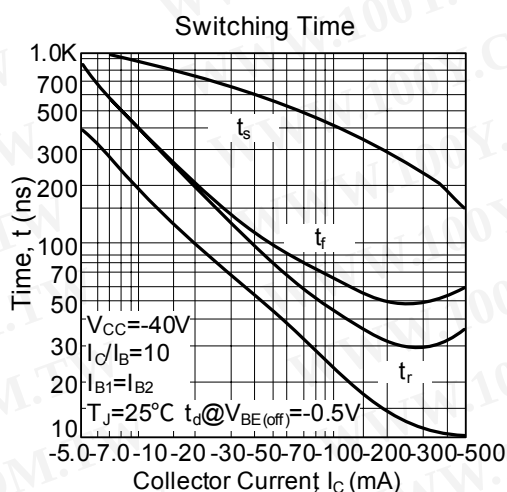
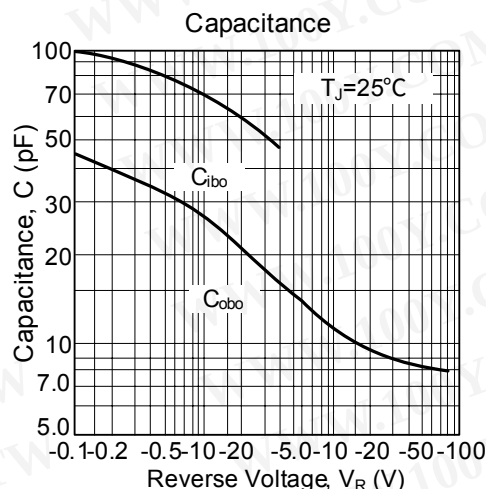
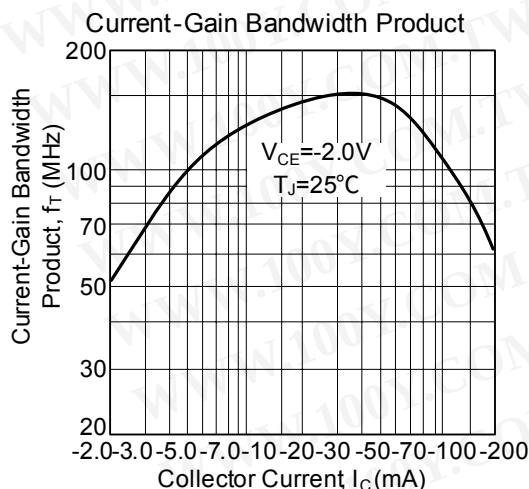
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■ SWITCHING TIME TEST CIRCUITS

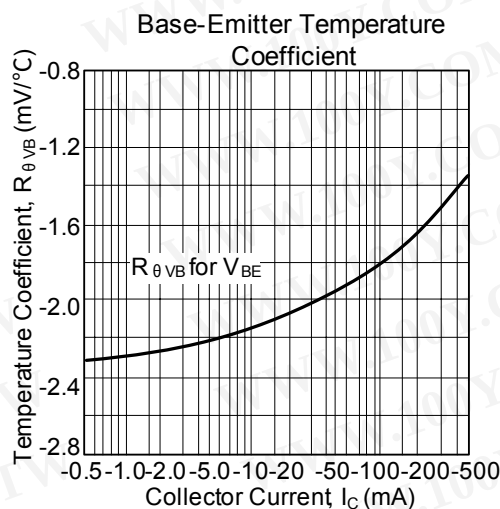
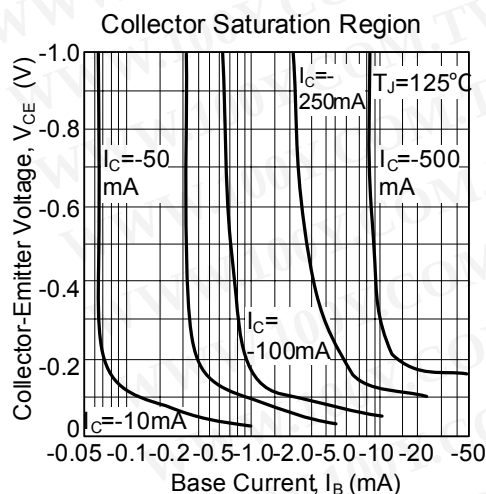


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■ TYPICAL CHARACTERISTICS



■ TYPICAL CHARACTERISTICS(Cont.)



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