



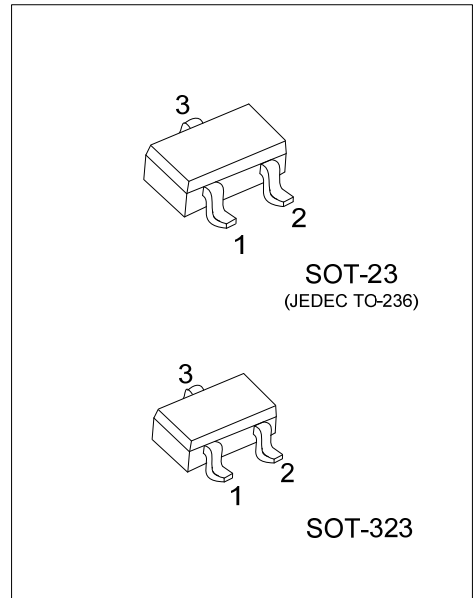
MMBTA55

PNP SILICON TRANSISTOR

AMPLIFIER TRANSISTOR

FEATURES

* Collector-Emitter Voltage: $V_{CE0}=60V$



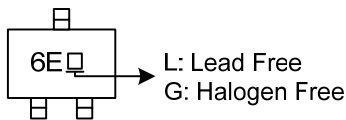
ORDERING INFORMATION

Ordering Number		Package	Pin Assignment			Packing
Lead Free	Halogen Free		1	2	3	
MMBTA55L-AE3-R	MMBTA55G-AE3-R	SOT-23	B	E	C	Tape Reel
MMBTA55L-AL3-R	MMBTA55G-AL3-R	SOT-323	B	E	C	Tape Reel

Note: Pin Assignment: B: Base E: Emitter C: Collector

<p>MMBTA55G-AE3-R</p> <p>(1)Packing Type</p> <p>(2)Package Type</p> <p>(3)Green Package</p>	<p>(1) R: Tape Reel</p> <p>(2) AE3: SOT-23, AL3: SOT-323</p> <p>(3) G: Halogen Free and Lead Free, L: Lead Free</p>
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MARKING



MMBTA55

PNP SILICON TRANSISTOR

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

PARAMETER	SYMBOL	RATINGS	UNIT	
Collector-base voltage	V _{CBO}	60	V	
Collector-emitter voltage	V _{CEO}	60	V	
Emitter-base voltage	V _{EBO}	4	V	
Collector current - Continuous	I _C	500	mA	
Total device dissipation	P _D	T _A =25°C	350	mW
		Derate above 25°C	2.8	mW/°C
Junction Temperature	T _J	+125	°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.

■ THERMAL CHARACTERISTICS

PARAMETER	SYMBOL	RATINGS	UNIT
Junction to Ambient	θ _{JA}	357	°C/W

Note: R_{θJA} is measured with the device soldered into a typical printed circuit board.

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

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
OFF CHARACTERISTICS						
Collector-emitter breakdown voltage (note 1)	V _{(BR)CEO}	I _C =1.0mA, I _B =0	60			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	4			V
Collector cutoff current	I _{CES}	V _{CE} =60V, I _B =0			0.1	μA
Collector cutoff current	I _{CBO}	V _{CB} =60V, I _E =0			0.1	μA
ON CHARACTERISTICS						
DC current gain	h _{FE}	I _C =10mA, V _{CE} =1V	100			
		I _C =100mA, V _{CE} =1V	100			
Collector-emitter saturation voltage	V _{CE(SAT)}	I _C =100mA, I _B =10mA			0.25	V
Base-emitter on voltage	V _{BE(ON)}	I _C =100mA, V _{CE} =1V			1.2	V
SMALL-SIGNAL CHARACTERISTICS						
Current gain bandwidth product (note 2)	f _T	I _C =100mA, V _{CE} =1V, f=100MHz	50			MHz

Notes: 1. Pulse test: PW≤300μs, Duty Cycle≤2%.

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

SWITCHING TIME TEST CIRCUIT

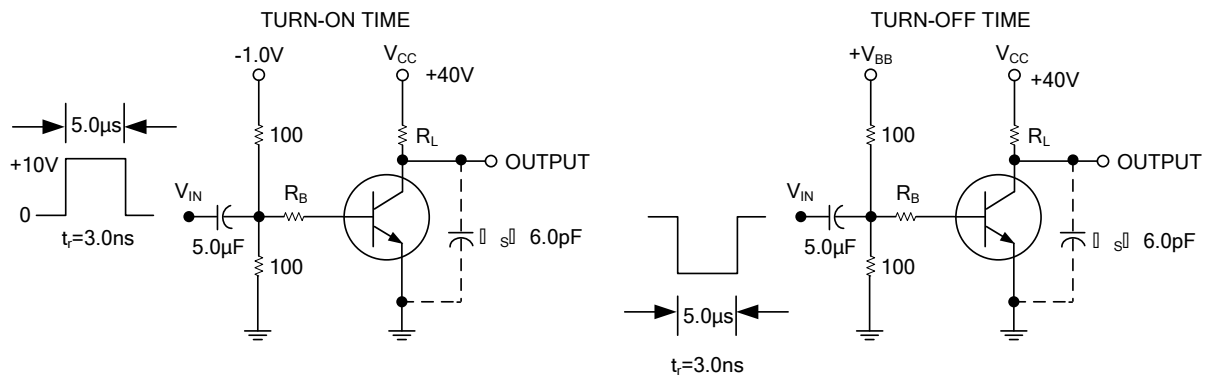


Figure 1. (Note: Total shunt capacitance of test jig and connectors for PNP test circuits, reverse all voltage polarities.)

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