



MMBTA05 NPN Silicon Epitaxial Transistor

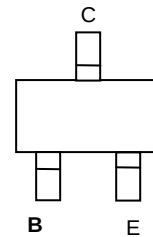
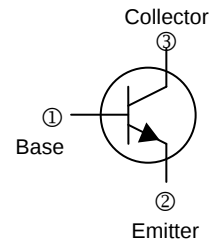
DESCRIPTION

- The MMBTA05 is Amplifier Transistor

FEATURES

- Driver Transistor

MARKING : 1H



MAXIMUM RATINGS (at $T_a = 25^\circ\text{C}$ unless otherwise specified)

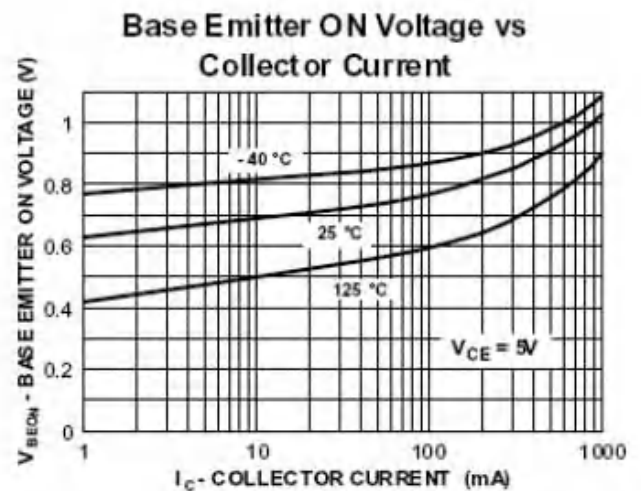
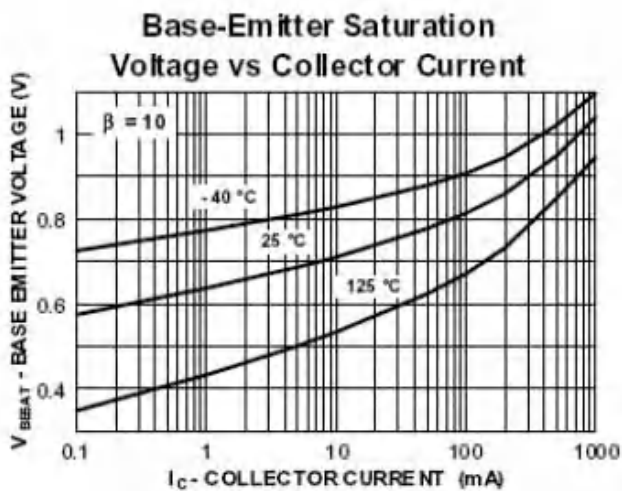
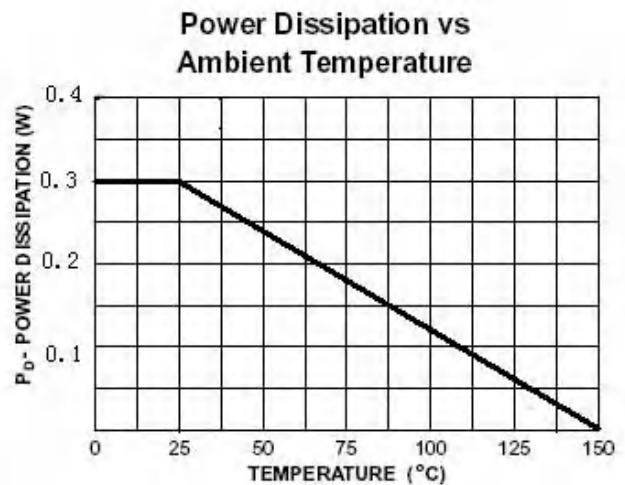
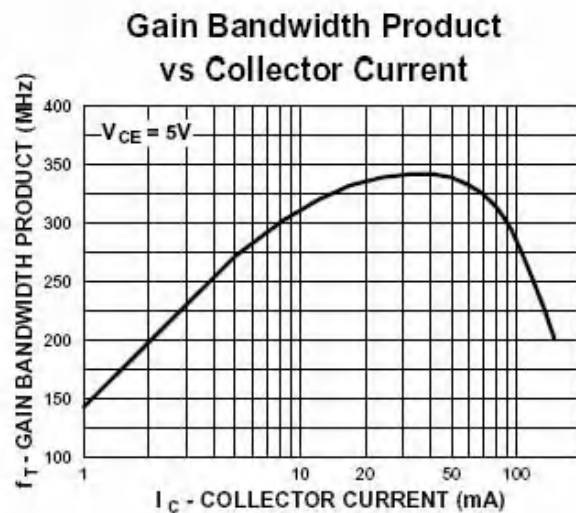
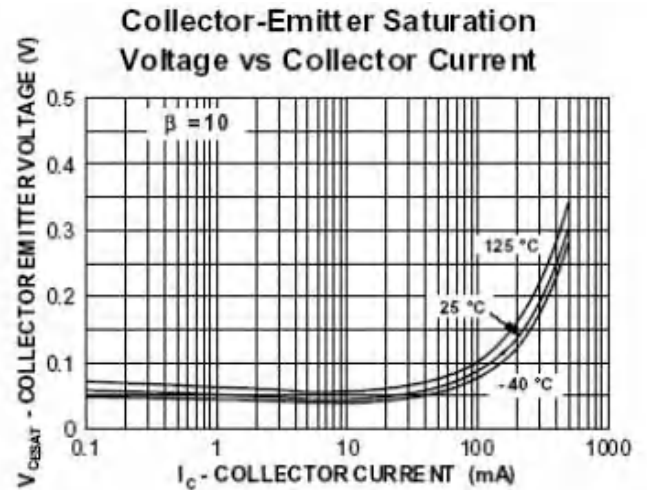
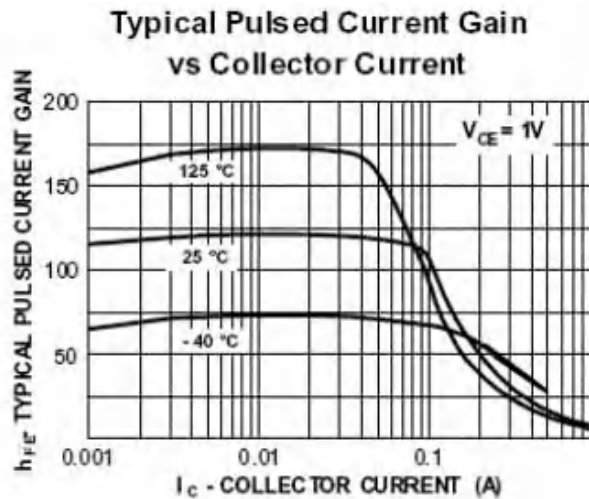
PARAMETER	SYMBOL	RATINGS	UNIT
Collector - Base Voltage	V_{CBO}	60	V
Collector - Emitter Voltage	V_{CEO}	60	V
Emitter - Base Voltage	V_{EBO}	4	V
Collector Current - Continuous	I_C	0.5	A
Collector Power Dissipation	P_C	300	mW
Junction, Storage Temperature	T_J, T_{STG}	150, -55~150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS (at $T_a = 25^\circ\text{C}$ unless otherwise specified)

PARAMETER	TEST CONDITIONS	SYMBOL	MIN.	MAX.	UNIT
Collector-Base Breakdown Voltage	$I_C = 100\mu\text{A}, I_E = 0$	$V_{(BR)CBO}$	60		V
Collector-Emitter Breakdown Voltage	$I_C = 1\text{mA}, I_B = 0$	$V_{(BR)CEO}$	60		V
Emitter-Base Breakdown Voltage	$I_E = 100\mu\text{A}, I_C = 0$	$V_{(BR)EBO}$	4		V
Collector Cut-Off Current	$V_{CB} = 60\text{V}, I_E = 0$	I_{CBO}		0.1	μA
Collector Cut-Off Current	$V_{CE} = 60\text{V}, I_B = 0$	I_{CEO}		0.1	μA
Collector Cut-Off Current	$V_{EB} = 3\text{V}, I_C = 0$	I_{EBO}		0.1	μA
DC Current Gain	$V_{CE} = 1\text{V}, I_C = 10\text{mA}$	h_{FE1}	100	400	
	$V_{CE} = 1\text{V}, I_C = 100\text{mA}$	h_{FE2}	100		
Collector-Emitter Saturation Voltage	$I_C = 100\text{mA}, I_B = 10\text{mA}$	$V_{CE(sat)}$		0.25	V
Base-Emitter Voltage	$V_{CE} = 1\text{V}, I_C = 100\text{mA}$	V_{BE}		1.2	V
Transition Frequency	$V_{CE} = 2\text{V}, I_C = 10\text{mA}, f = 100\text{MHz}$	F_T	100		MHz



CHARACTERISTIC CURVES

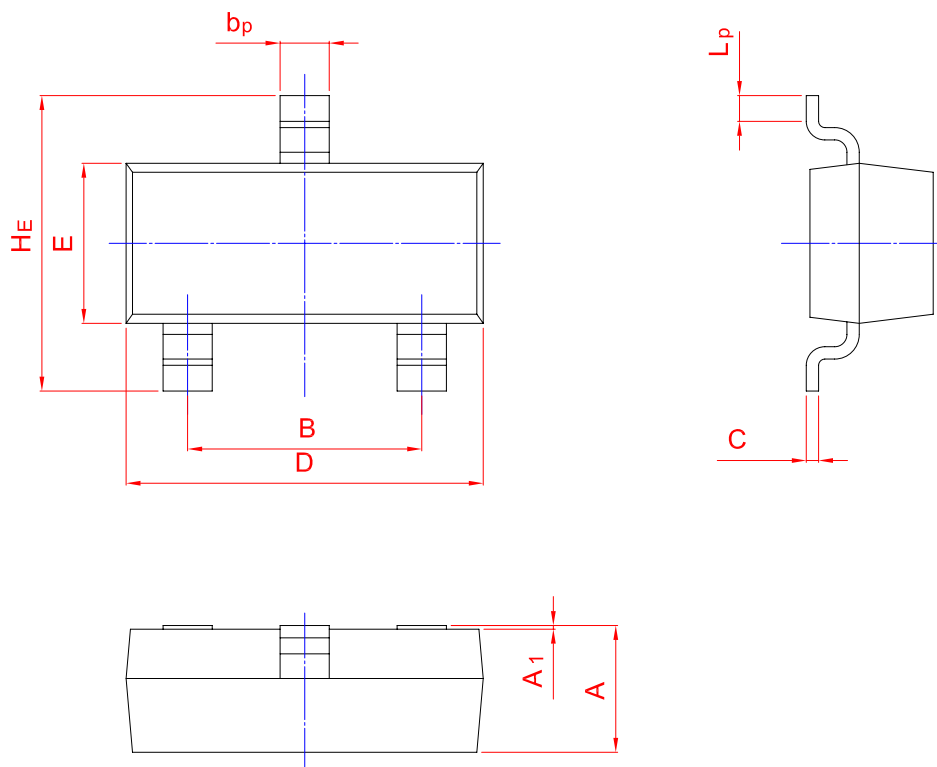
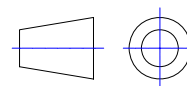




PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



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