

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

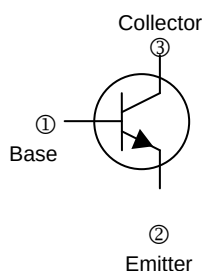
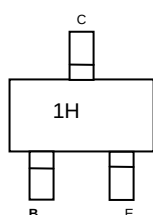
DESCRIPTION

- The MMBTA05 is Amplifier Transistor

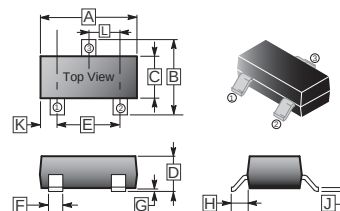
FEATURES

- Driver Transistor

MARKING



SOT-23



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	2.70	3.04	G	-	0.18
B	2.10	2.80	H	0.40	0.60
C	1.20	1.60	J	0.08	0.20
D	0.89	1.40	K	0.6	REF.
E	1.78	2.04	L	0.85	1.15
F	0.30	0.50			

MAXIMUM RATINGS (at T_a = 25°C unless otherwise specified)

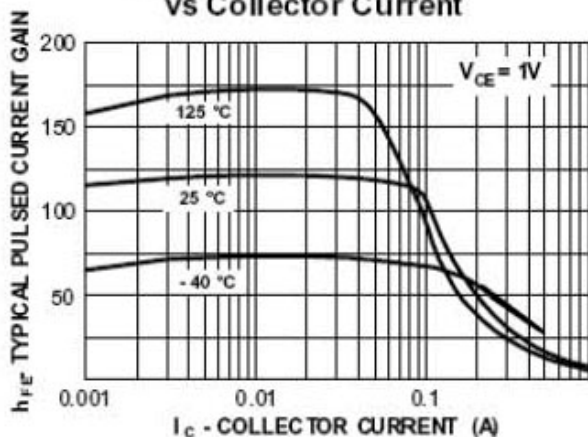
PARAMETER	SYMBOL	RATINGS	UNIT
Collector - Base Voltage	V _{CBO}	60	V
Collector - Emitter Voltage	V _{CEO}	60	V
Emitter - Base Voltage	V _{EBO}	4	V
Collector Current - Continuous	I _C	0.5	A
Collector Power Dissipation	P _C	300	mW
Junction, Storage Temperature	T _J , T _{STG}	150, -55~150	°C

ELECTRICAL CHARACTERISTICS (at T_a = 25°C unless otherwise specified)

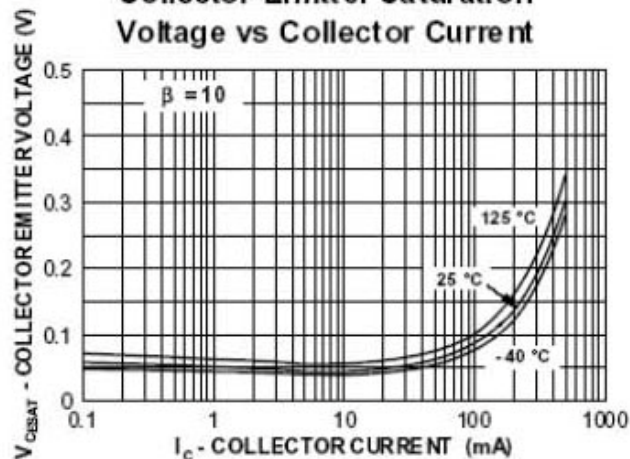
PARAMETER	TEST CONDITIONS	SYMBOL	MIN.	MAX.	UNIT
Collector-Base Breakdown Voltage	I _C = 100μA, I _E = 0	V _{(BR)CBO}	60		V
Collector-Emitter Breakdown Voltage	I _C = 1mA, I _B = 0	V _{(BR)CEO}	60		V
Emitter-Base Breakdown Voltage	I _E = 100μA, I _C = 0	V _{(BR)EBO}	4		V
Collector Cut-Off Current	V _{CB} = 60V, I _E = 0	I _{CBO}		0.1	μA
Collector Cut-Off Current	V _{CE} = 60V, I _B = 0	I _{CEO}		0.1	μA
Collector Cut-Off Current	V _{EB} = 3V, I _C = 0	I _{EBO}		0.1	μA
DC Current Gain	V _{CE} = 1V, I _C = 10mA	h _{FE1}	100	400	
	V _{CE} = 1V, I _C = 100mA	h _{FE2}	100		
Collector-Emitter Saturation Voltage	I _C = 100mA, I _B = 10mA	V _{CE(sat)}		0.25	V
Base-Emitter Voltage	V _{CE} = 1V, I _C = 100mA	V _{BE}		1.2	V
Transition Frequency	V _{CE} = 2V, I _C = 10mA, f = 100MHz	F _T	100		MHz

CHARACTERISTIC CURVES

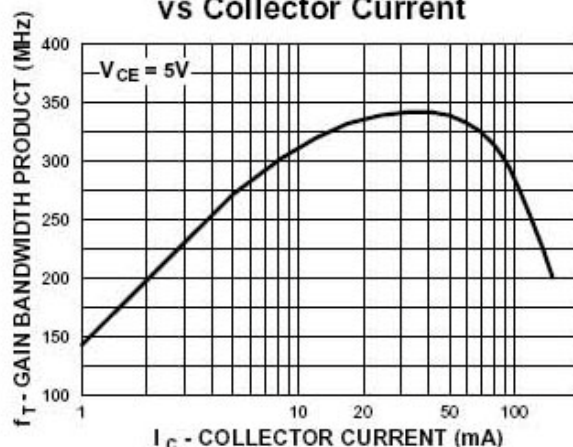
Typical Pulsed Current Gain
vs Collector Current



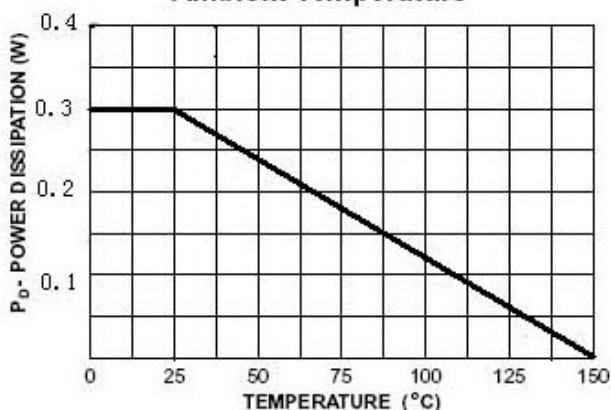
Collector-Emitter Saturation
Voltage vs Collector Current



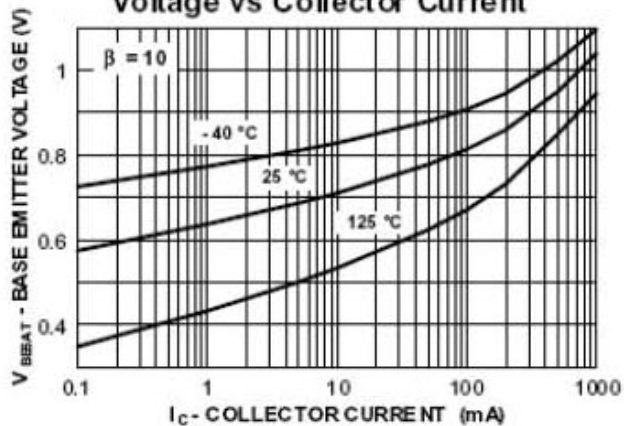
Gain Bandwidth Product
vs Collector Current



Power Dissipation vs
Ambient Temperature



Base-Emitter Saturation
Voltage vs Collector Current



Base Emitter ON Voltage vs
Collector Current

