

SOT-23 Plastic-Encapsulate Transistors

MMBTA05 TRANSISTOR (NPN)

FEATURES

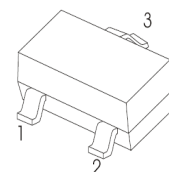
Driver transistor

MARKING :1H

MAXIMUM RATINGS (T_a=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	60	V
V _{CEO}	Collector-Emitter Voltage	60	V
V _{EBO}	Emitter-Base Voltage	4	V
I _C	Collector Current -Continuous	0.5	A
P _C	Collector Power Dissipation	300	mW
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

SOT-23

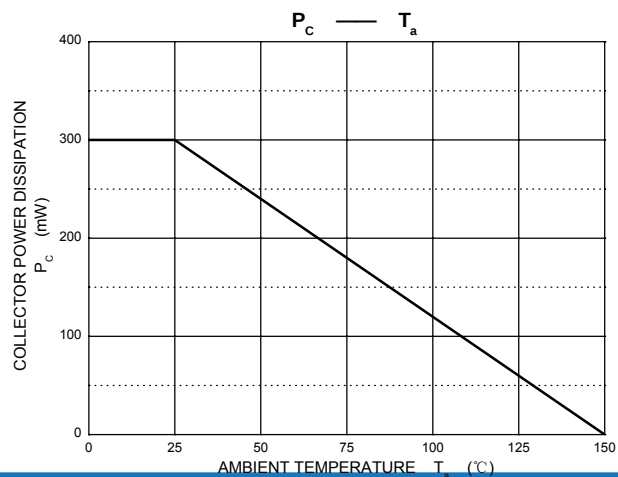
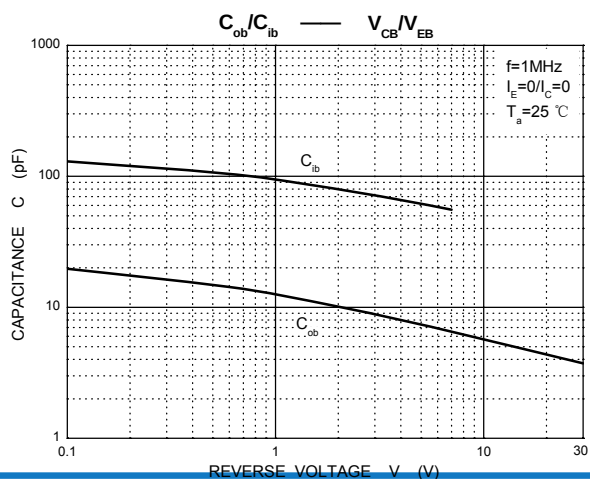
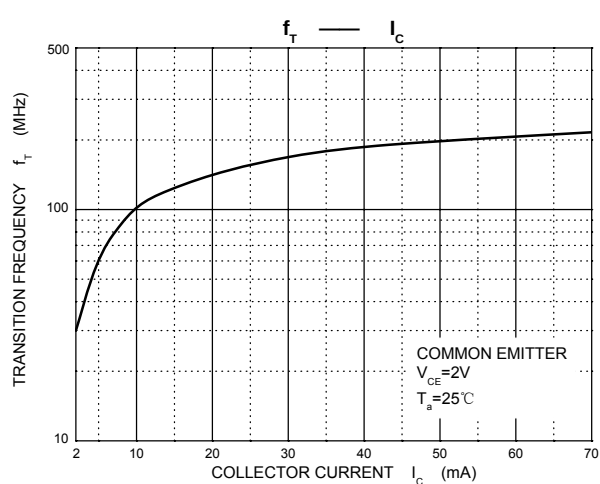
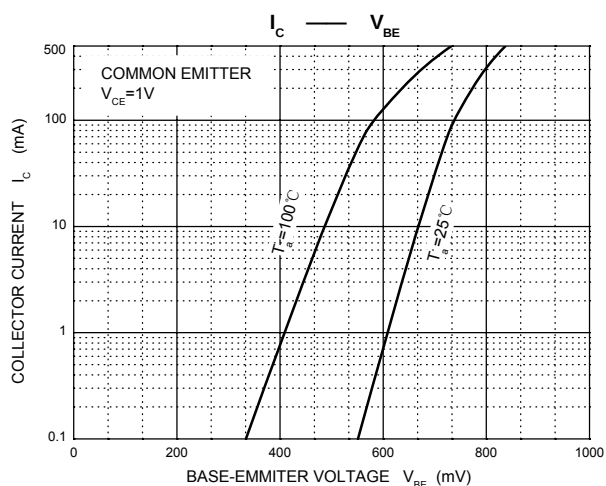
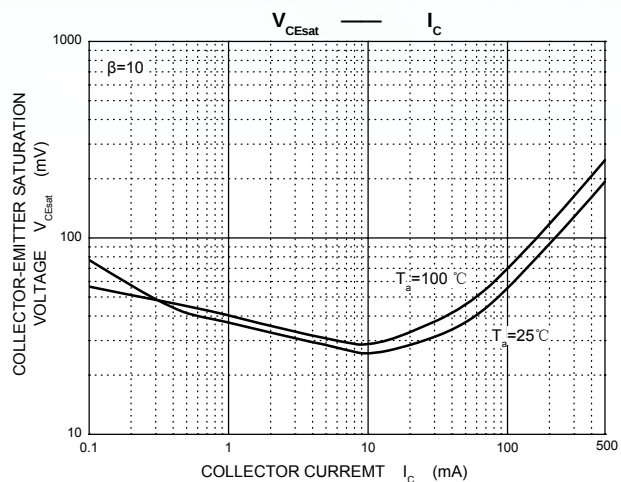
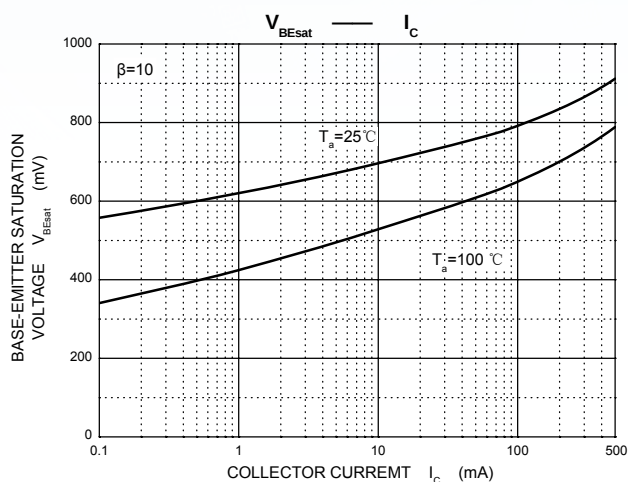
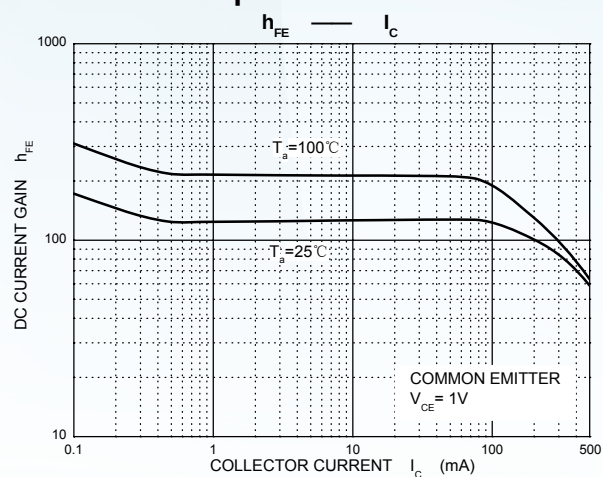
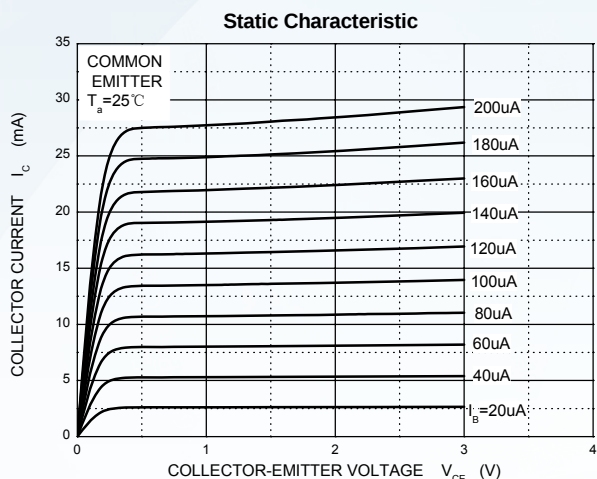


1. BASE
2. EMITTER
3. COLLECTOR

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

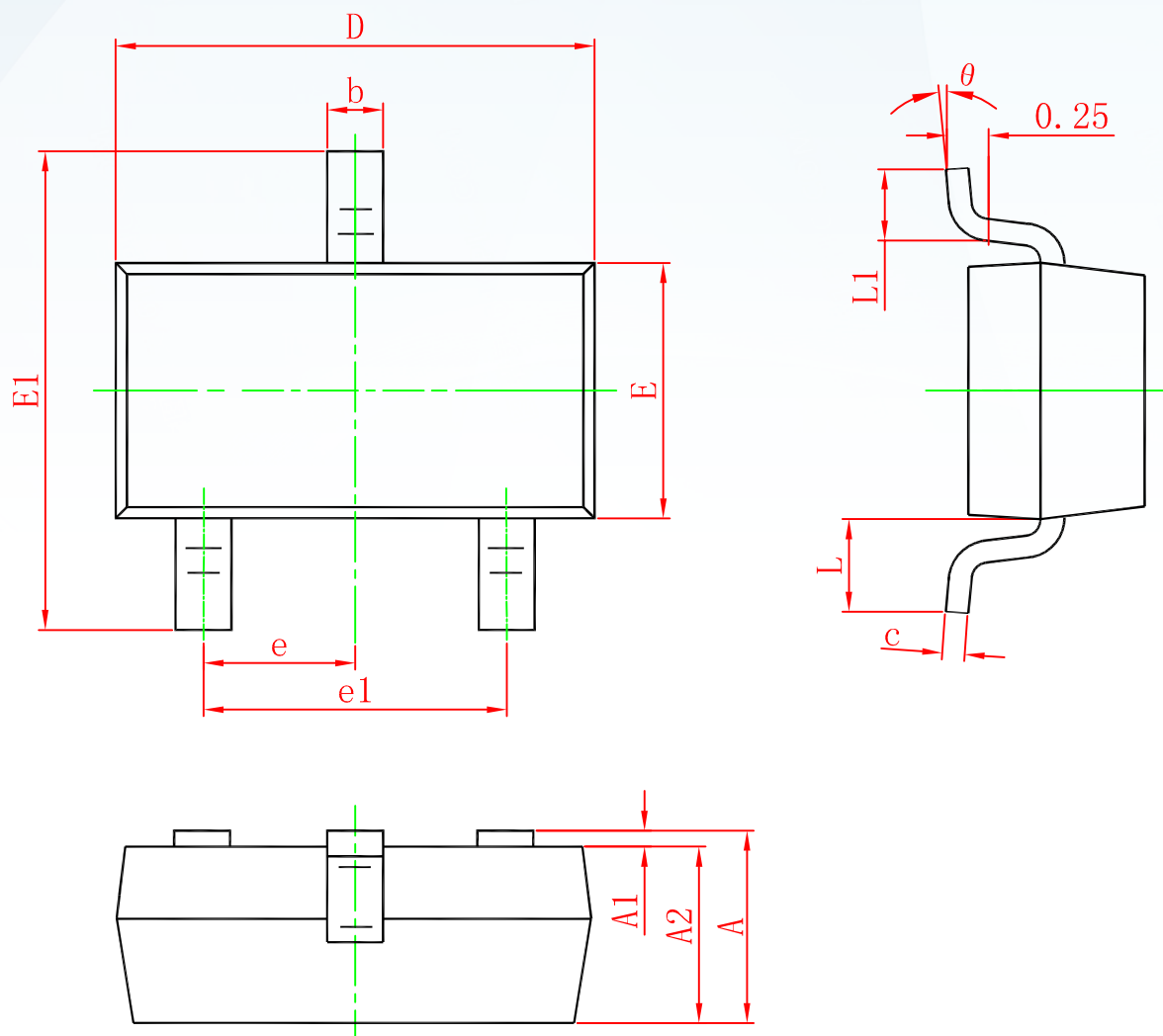
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C = 100μA, I _E =0	60			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 1mA, I _B =0	60			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	4			V
Collector cut-off current	I _{CBO}	V _{CB} =60V, I _E =0			0.1	μA
Collector cut-off current	I _{CEO}	V _{CE} =60V, I _B =0			0.1	μA
Collector cut-off current	I _{EBO}	V _{EB} =3V, I _C =0			0.1	μA
DC current gain	h _{FE1}	V _{CE} =1V, I _C = 10mA	100		400	
	h _{FE2}	V _{CE} =1V, I _C = 100mA	100			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =100mA, I _B =10mA			0.25	V
Base-emitter voltage	V _{BE}	V _{CE} =1V, I _C = 100mA			1.2	V
Transition frequency	f _T	V _{CE} = 2V, I _C =10mA f=100MHz	100			MHz

SOT-23 Plastic-Encapsulate Transistors



SOT-23 Plastic-Encapsulate Transistors

SOT-23 PACKAGE OUTLINE DIMENSIONS



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.047	0.055
E1	2.250	2.550	0.089	0.100
e	0.950 TYP.		0.037 TYP.	
e1	1.800	2.000	0.071	0.079
L	0.550 REF.		0.022 REF.	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°

Disclaimer

EVVOSEMI ("EVVO") reserves the right to make corrections, enhancements, improvements, and other changes to its products and services at any time, and to discontinue any product or service without notice.

EVVO warrants the performance of its hardware products to the specifications applicable at the time of sale in accordance with its standard warranty. Testing and other quality control techniques are used as deemed necessary by EVVO to support this warranty. Except where mandated by government requirements, testing of all parameters of each product is not necessarily performed.

Customers should obtain and confirm the latest product information and specifications before final design, purchase, or use. EVVO makes no warranty, representation, or guarantee regarding the suitability of its products for any particular purpose, nor does EVVO assume any liability for application assistance or customer product design. EVVO does not warrant or accept any liability for products that are purchased or used for any unintended or unauthorized application.

EVVO products are not authorized for use as critical components in life support devices or systems without the express written approval of EVVOSEMI.

The EVVO logo and EVVOSEMI are trademarks of EVVOSEMI or its subsidiaries in relevant jurisdictions. EVVO reserves the right to make changes without further notice to any products herein.