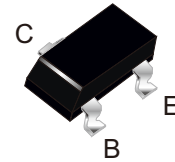


FEATURES

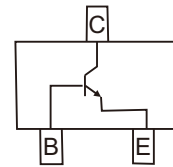
- Epoxy meets UL-94 V-0 flammability rating
- Driver transistor
- Power Dissipation of 300mW
- High Stability and High Reliability

SOT-23



MECHANICAL DATA

- Case: SOT-23(TO-236)
- Terminals: Plated solderable per MIL-STD-750, method 2026
- Mounting Position: Any
- Marking: 1H



MAXIMUM RATINGS($T_A=25^{\circ}\text{C}$ Unless otherwise specified)

Parameter	Symbol	Unit	Value
Collector-Emitter Voltage	V_{CEO}	V	60
Collector-Base Voltage	V_{CBO}	V	60
Emitter-Base Voltage	V_{EBO}	V	4
Collector Current, Continuous	I_C	mA	500
Collector Power Dissipation	P_D	mW	300
Operation Junction Temperature	T_J	$^{\circ}\text{C}$	-55 to +150
Storage Temperature	T_{STG}	$^{\circ}\text{C}$	-55 to +150
Thermal resistance From junction to ambient	$R_{\theta JA}$	$^{\circ}\text{C}/\text{W}$	417

MMBTA05

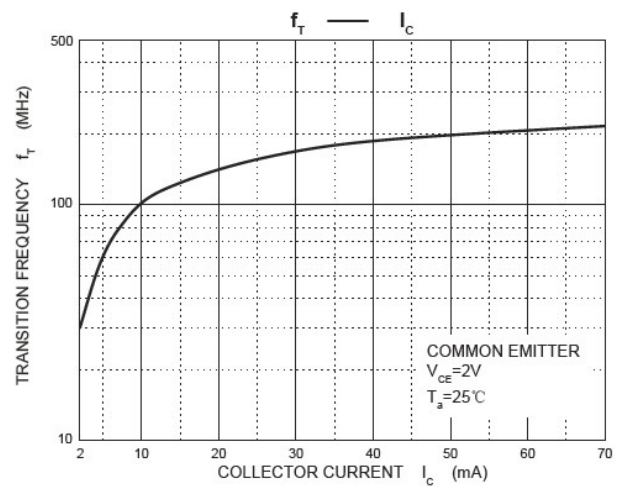
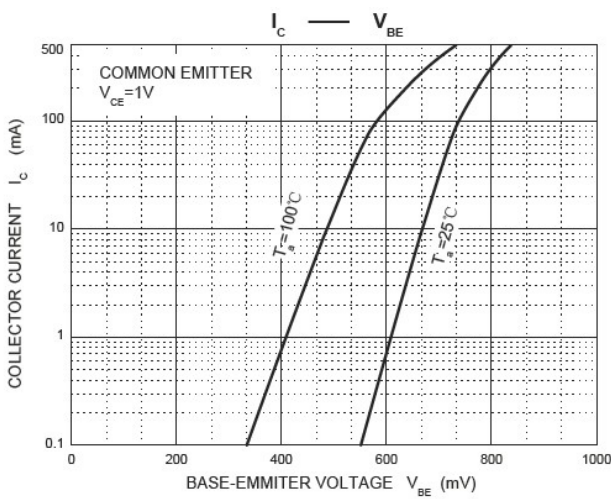
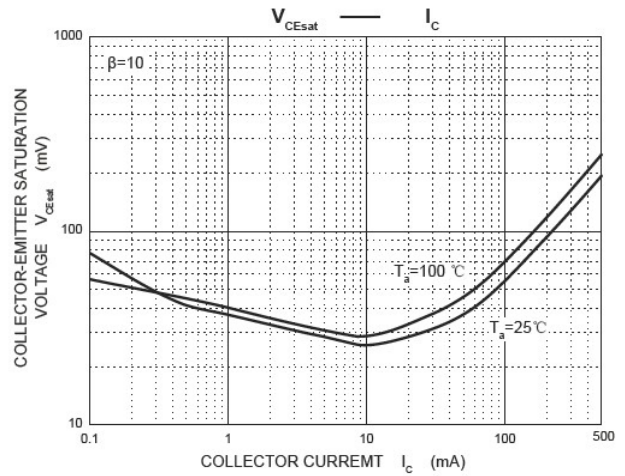
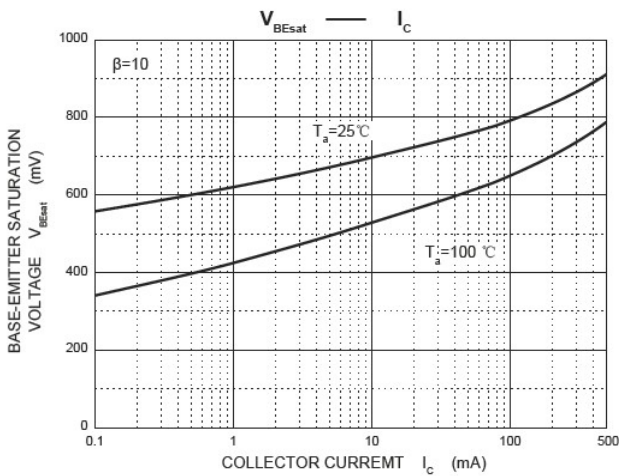
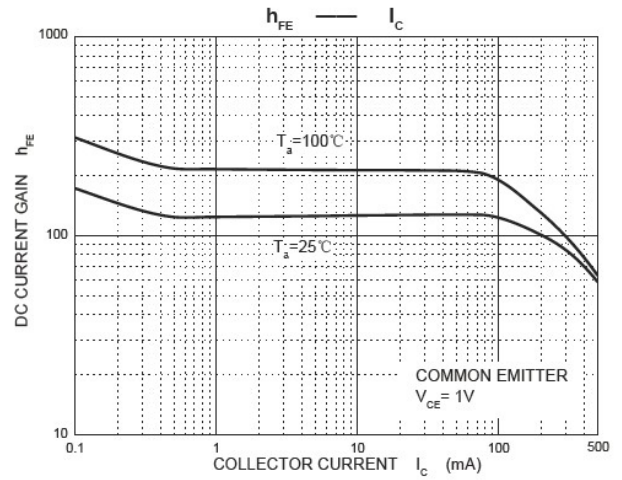
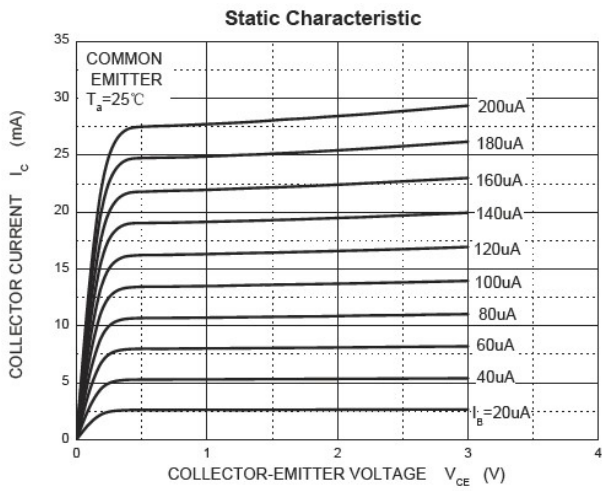
ELECTRICAL CHARACTERISTICS(T_A=25°C Unless otherwise specified)

Parameter	Symbol	Unit	Conditions	Min	Max
Collector-Emitter Breakdown Voltage	V _{(BR)CEO}	V	I _C =1mA, I _B =0	60	---
Collector-Base Breakdown Voltage	V _{(BR)CBO}	V	I _C =100μA, I _E =0	60	---
Emitter-Base Breakdown Voltage	V _{(BR)EBO}	V	I _E =100μA, I _C =0	4	---
Collector cut-off Current	I _{CBO}	nA	V _{CB} =60V, I _E =0	---	100
Collector cut-off Current	I _{CEO}	nA	V _{CE} =60V, I _B =0	---	100
Emitter cut-off Current	I _{EBO}	nA	V _{EB} =3V, I _C =0	---	100
DC Current Gain	h _{FE(1)}		I _C =10mA, V _{CE} =1V	100	400
	h _{FE(2)}		I _C =100mA, V _{CE} =1V	100	---
Collector-Emitter Saturation Voltage	V _{CE(sat)}	V	I _C =100mA, I _B =10mA	---	0.25
Base-Emitter Voltage	V _{BE}	V	I _C =100mA, V _{CE} =1V	---	1.2
Output Capacitance	C _{ob}	pF	V _{CB} =12V, f=1.0MHz, I _E =0	---	---
Current Gain-Bandwidth Product	f _T	MHz	I _C =10mA, V _{CE} =2V f=100MHz	100	---

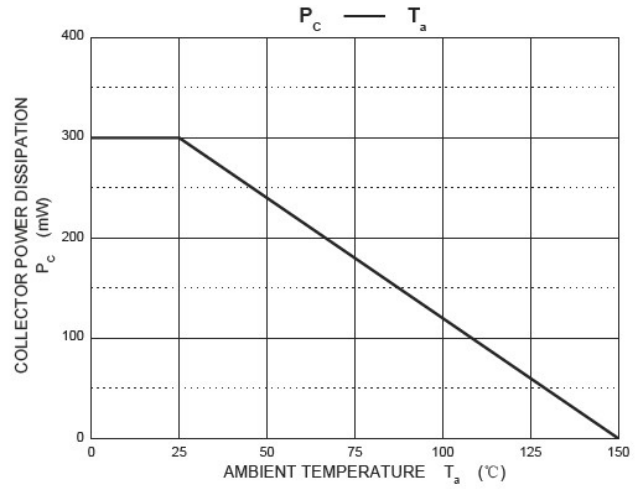
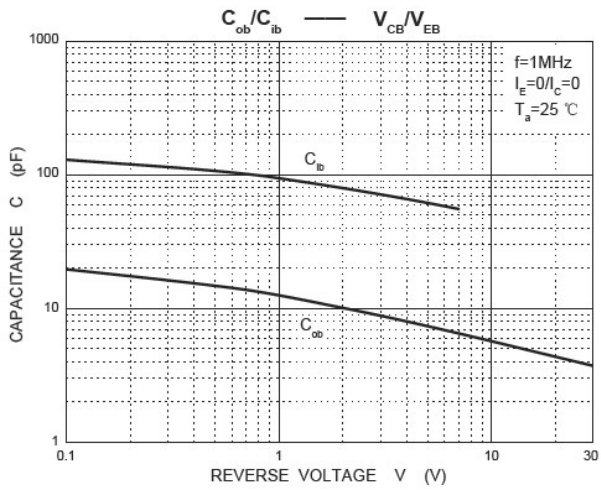
AVAILABLE PACK INFORMATION

Product code	Pack	Reel Size (mm)	Quantity (Pcs/reel)	Quantity (pcs/box)	Quantity (pcs/carton)
MMBTA05	T/R	Φ180	3K	30K	120K

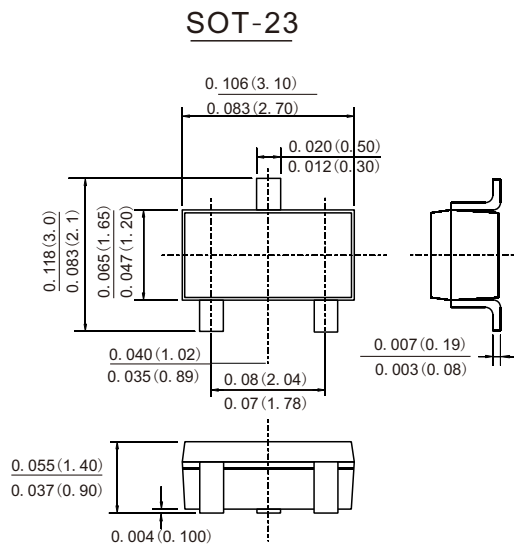
Characteristics(Typical)



MMBTA05

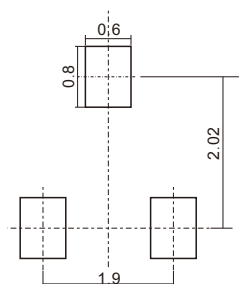


Outline Dimensions



Dimensions in inches and (millimeters)

Suggested pad layout



Dimensions in millimeters

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