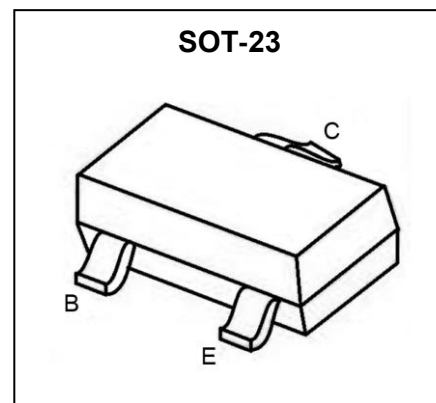


MMBTA42 Transistor(NPN)

Feature

- For Switching and Amplifier Applications
- Complementary PNP Type Available(MMBTA92)

Marking: 1D



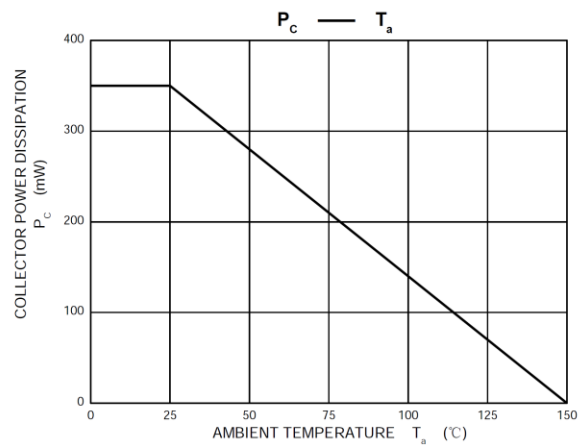
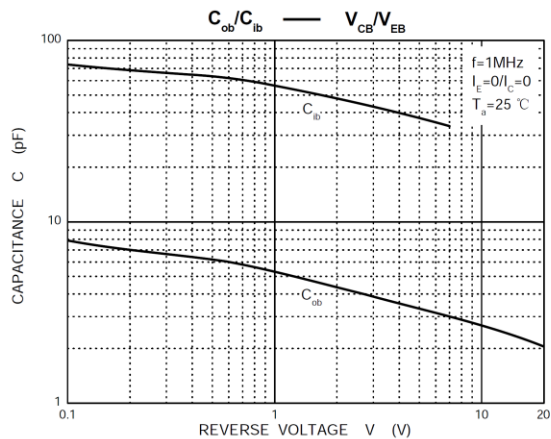
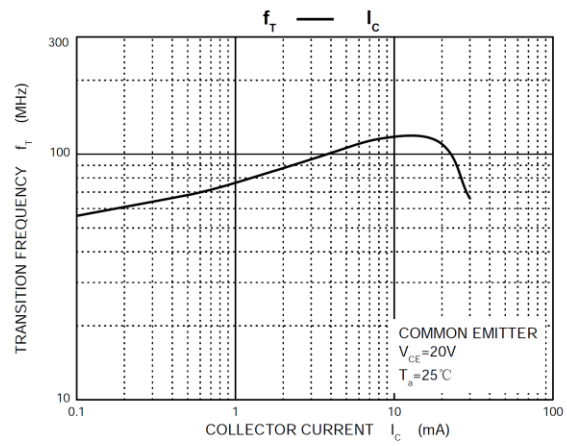
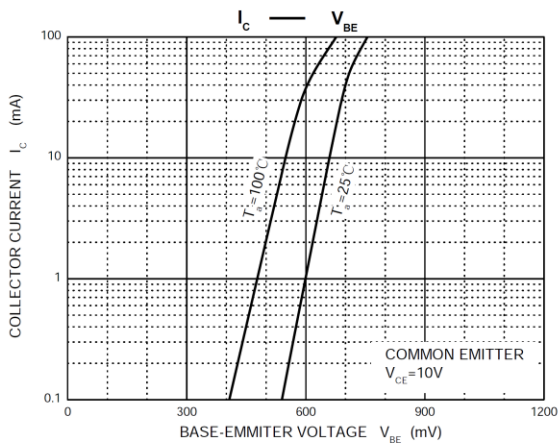
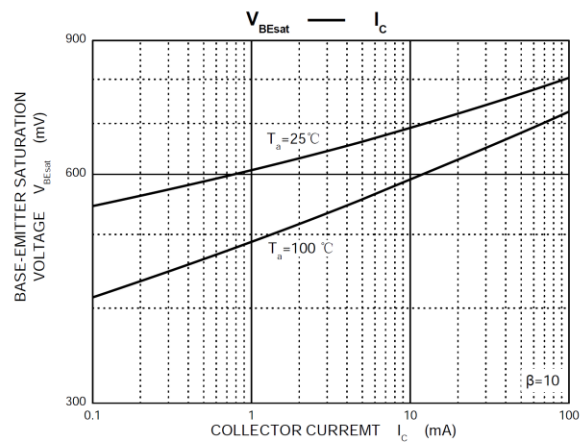
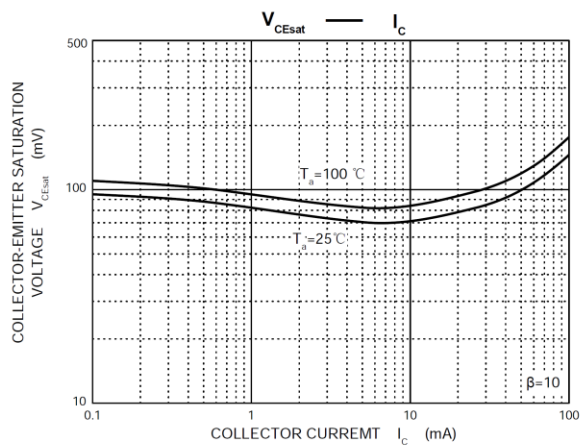
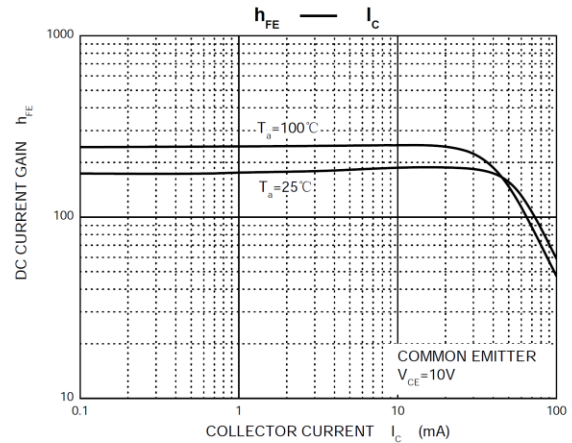
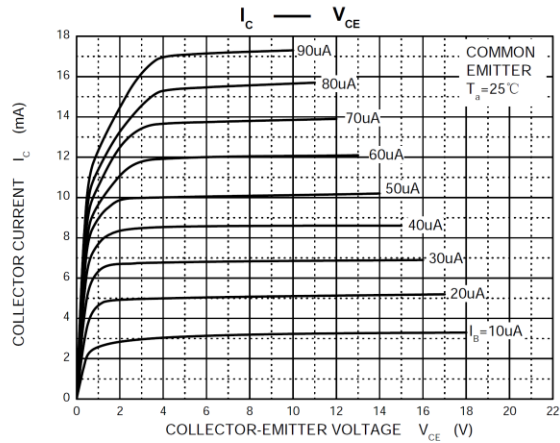
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

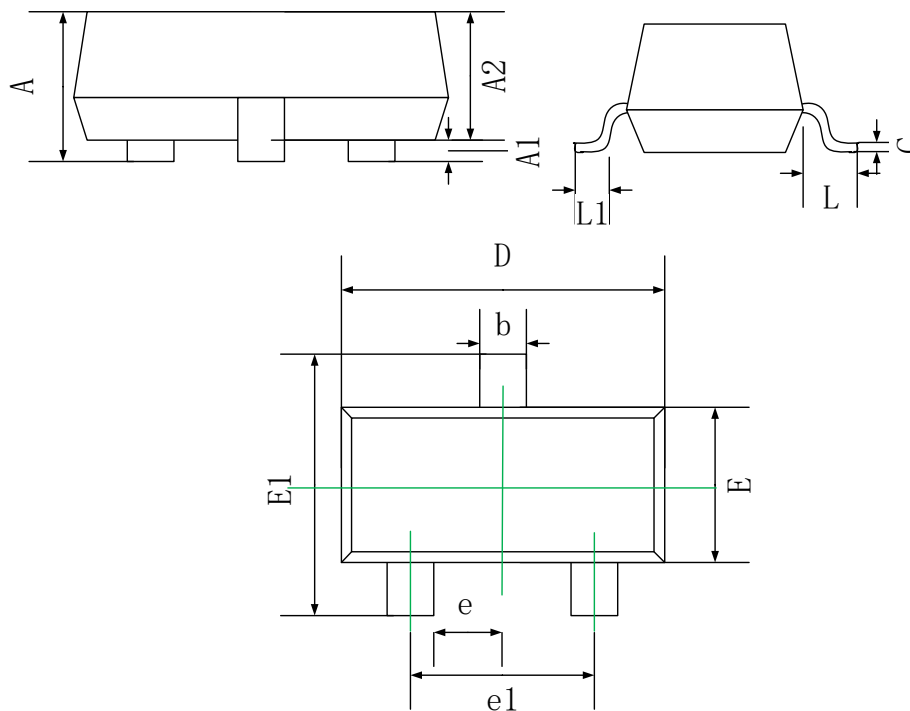
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	300	V
Collector-Emitter Voltage	V_{CEO}	300	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current -Continuous	I_C	0.3	A
Power Dissipation	P_d	0.35	W
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^{\circ}\text{C}$

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

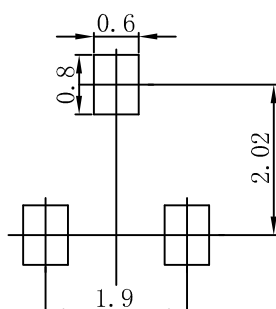
Parameter	Symbol	Test Condition	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}$, $I_E=0$	300		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$, $I_B=0$	300		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}$, $I_C=0$	5		V
Collector cut-off current	I_{CBO}	$V_{CB}=200\text{V}$, $I_E=0$		250	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}$, $I_C=0$		100	nA
DC current gain	h_{FE}	$V_{CE}=10\text{V}$, $I_C=1\text{mA}$	60		
		$V_{CE}=10\text{V}$, $I_C=10\text{mA}$	100	200	
		$V_{CE}=10\text{V}$, $I_C=30\text{mA}$	60		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=20\text{mA}$, $I_B=2\text{mA}$		0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=20\text{mA}$, $I_B=2\text{mA}$		0.9	V
Transition frequency	f_T	$V_{CE}=20\text{V}$, $I_C=10\text{mA}$, $f=30\text{MHz}$	50		MHZ

Typical Characteristics



SOT-23 Package Information


Symbol	Dimensions In Millimeters	
	Min.	Max.
A	0.90	1.15
A1	0.00	0.10
A2	0.90	1.05
b	0.30	0.50
c	0.08	0.15
D	2.80	3.00
E	1.20	1.40
E1	2.25	2.55
e	0.95 REF.	
e1	1.80	2.00
L	0.55 REF.	
L1	0.30	0.50

SOT-23 Suggested Pad Layout

Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

单击下面可查看定价，库存，交付和生命周期等信息

[>>GP\(格瑞宝\)](#)