



MMBTA42

NPN SILICON TRANSISTOR

DESCRIPTION

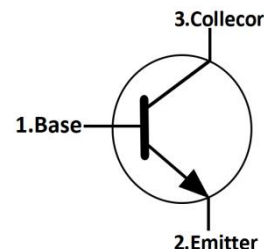
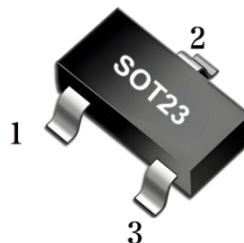
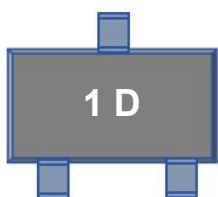
The MMBTA42 are high voltage transistors, designed for telephone switch and high voltage switch.

FEATURES

- * High breakdown voltage
- * Low collector-emitter saturation voltage
- * Complementary to MMBTA92

MARKING

Type Code: Marking: 1 D



ABSOLUTE MAXIMUM RATINGS (Tc=25°C, unless otherwise specified)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CB0}	Collector-base voltage	300	V
V _{CEO}	Collector-emitter voltage	300	V
V _{EB0}	Emitter-base voltage	5	V
I _C	Collector Current -Continuous	0.3	A
I _{CM}	Collector Current-Peak	0.5	A
P _C	Collector Power Dissipation	350	mW
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55~150	°C
R _{ΘJA}	Thermal Resistance From Junction To Ambient	357	°C/W

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged.
Absolute maximum ratings are stress ratings only and functional device operation is not implied.

ELECTRICAL CHARACTERISTICS (Tc=25°C, unless otherwise specified)

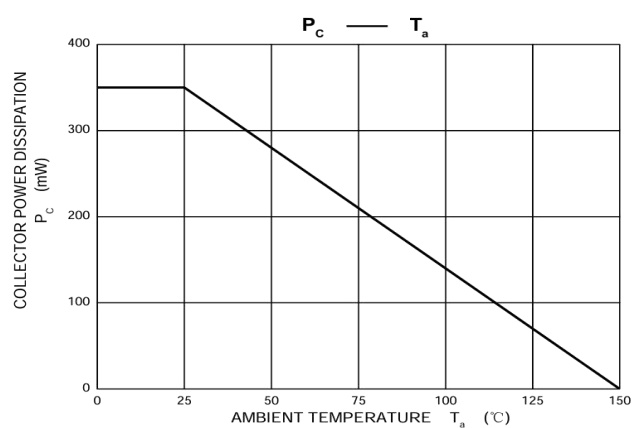
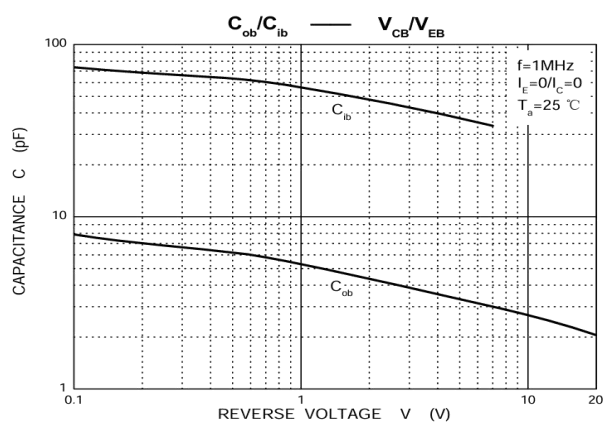
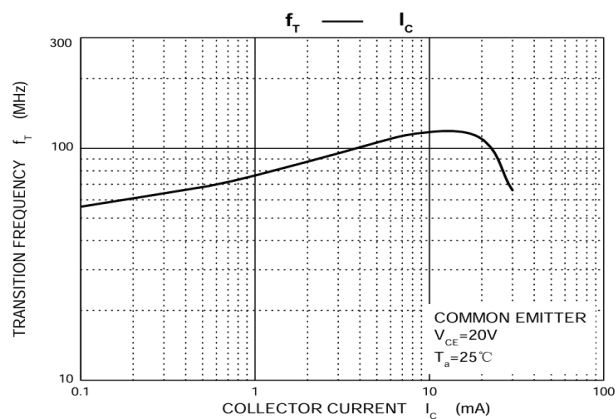
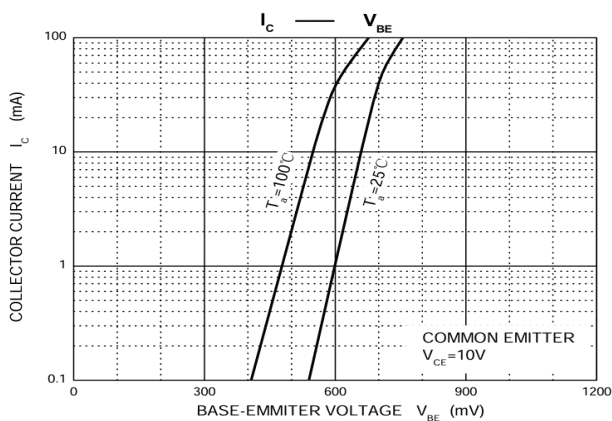
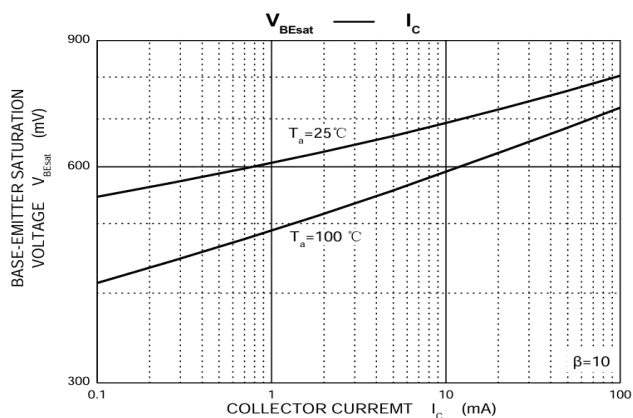
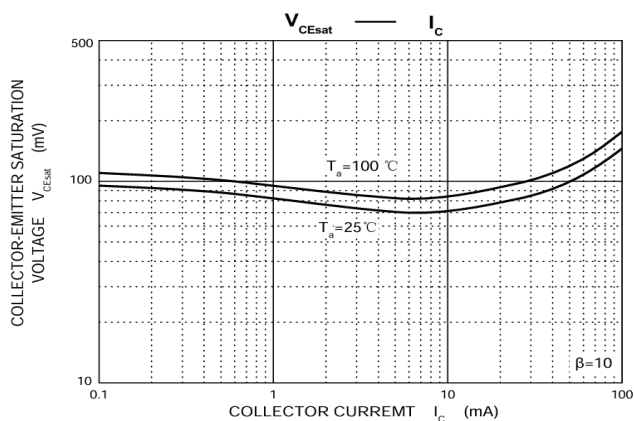
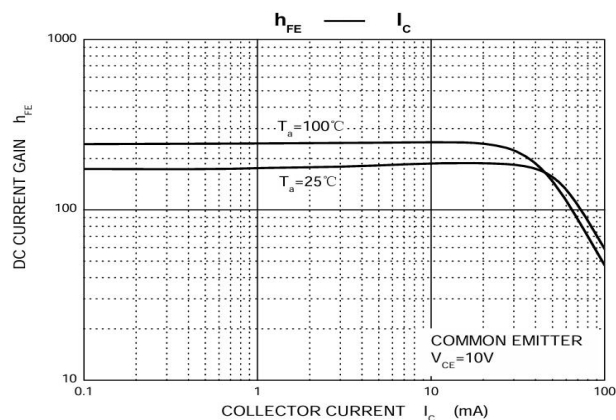
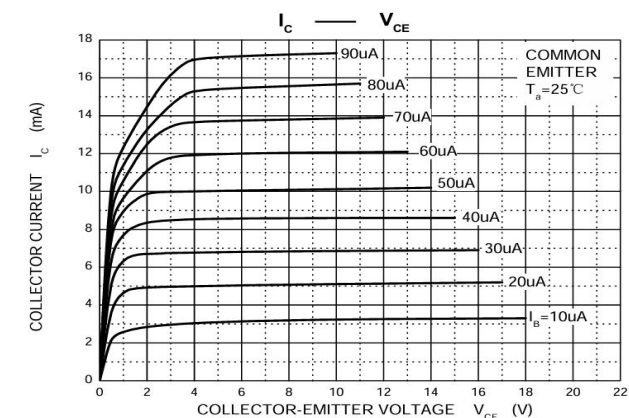
PARAMETER	SYMBOL	TEST CONDITIONS	MIN	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100μA, I _E =0	300		V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =1mA, I _B =0	300		V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =100μA, I _C =0	5		V
Collector cutoff current	I _{CBO}	V _{CB} =200V, I _E =0		0.25	μA
Emitter cut-off current	I _{EBO}	V _{EB} =5V, I _C =0		0.1	μA
DC Current Gain	h _{FE1}	V _{CE} =10V, I _C =1mA	60		
	h _{FE2}	V _{CE} =10V, I _C =10mA	100	200	
	h _{FE3}	V _{CE} =10V, I _C =30mA	60		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =20mA, I _B =2mA		0.2	V
Base-Emitter Saturation Voltage	V _{BE(sat)}	I _C =20mA, I _B =2mA		0.9	V
Transition frequency	f _T	V _{CE} =20V, I _C =10mA, f=30MHz	50		MHz



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■ TYPICAL CHARACTERISTICS

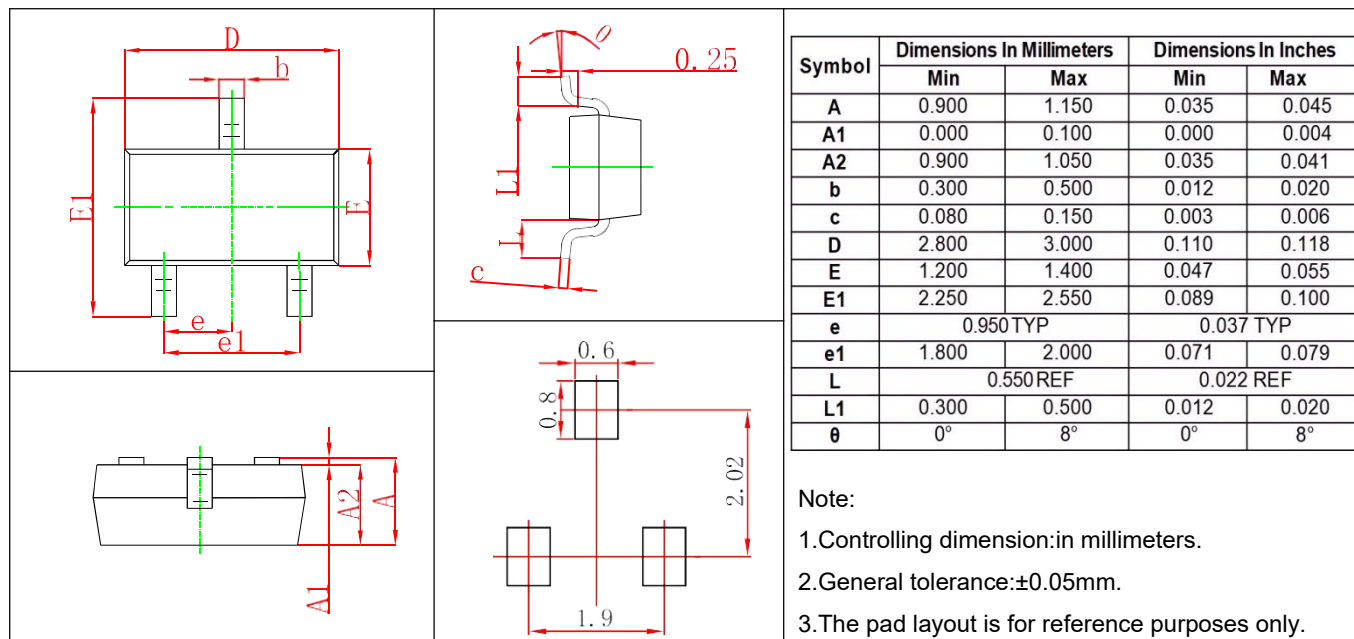




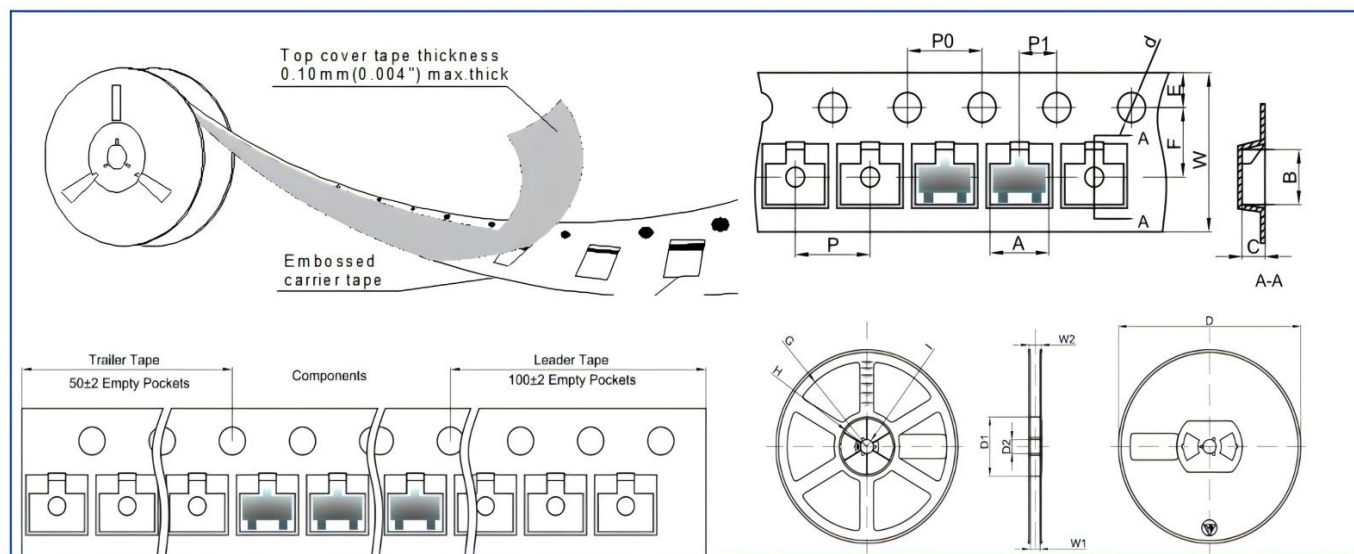
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SOT23 PACKAGE OUTLINE DIMENSIONS



REEL PACKING



Dimensions are in millimeter

PKG TYPE	A	B	C	d	E	F	Po	P	P1	W
SOT-23	3.15	2.77	1.22	Φ1.50	1.75	3.50	4.00	4.00	2.00	8.00
Reel Option	D	D1	D2	G	H	I	W1	W2	Q.TY PER REEL	
7" Dia	Φ178.0	54.40	13.00	R78.00	R25.60	R6.50	9.50	12.30	3000PCS	
13"Dia	φ330.0	/	13.00	/	/	R6.50	9.50	12.30	10000PCS	