

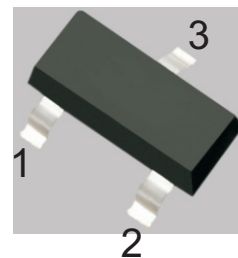


**MMBTA42**  
**NPN TRANSISTOR**

**FEATURES**

- High breakdown voltage
- Low collector-emitter saturation voltage
- Complementary to MMBTA92 (PNP)

**SOT-23**



1.BASE  
2.EMITTER  
3.COLLECTOR

**MAXIMUM RATINGS (Ta=25°C unless otherwise noted)**

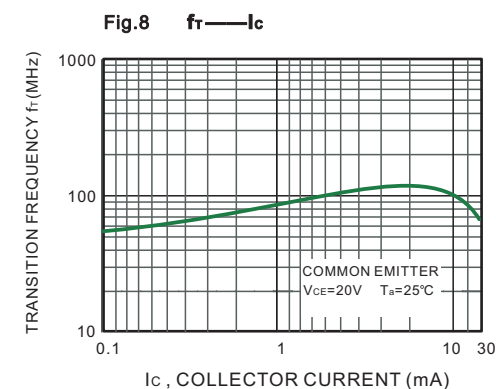
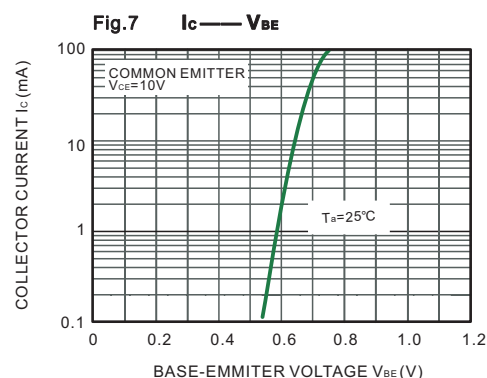
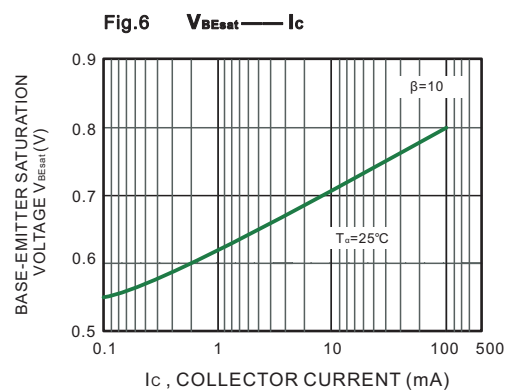
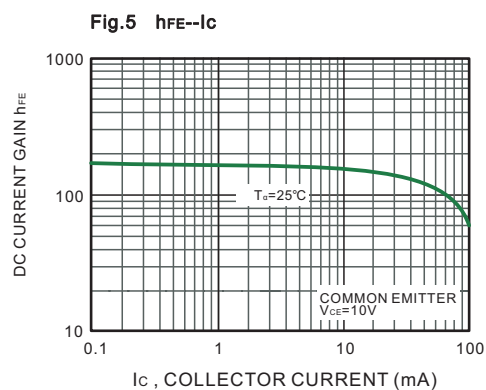
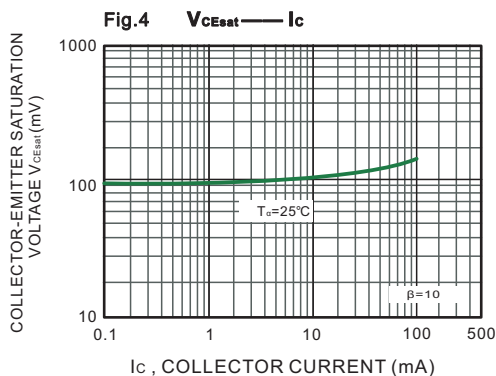
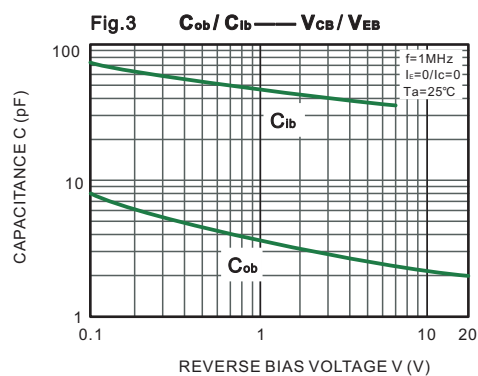
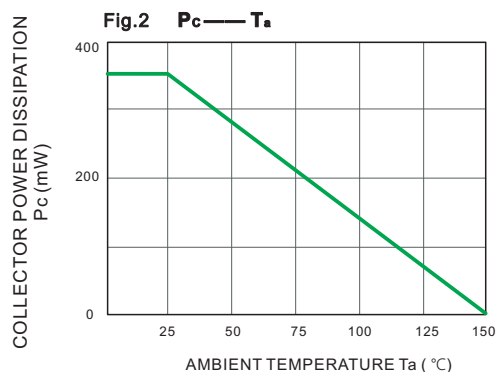
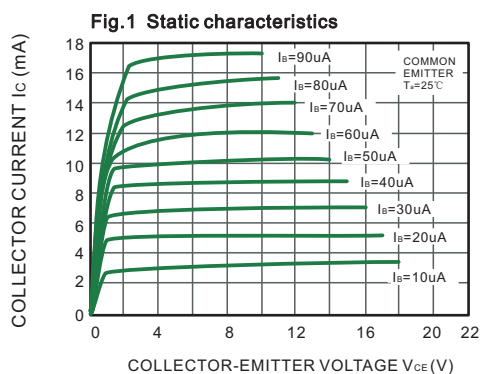
Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CB0}$	300	V
Collector-Emitter Voltage	$V_{CEO}$	300	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current — Continuous	$I_C$	0.3	A
Collector Current-Peak	$I_{CM}$	0.5	A
Collector Power Dissipation	$P_C$	0.35	W
Thermal Resistance, junction to Ambient	$R_{thJA}$	357	°C/W
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{stg}$	-55~+150	°C

**ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)**

Parameter	Symbol	Test conditions	Min	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = 100\mu A, I_E = 0$	300		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA, I_B = 0$	300		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\mu A, I_C = 0$	5		V
Collector cut-off current	$I_{CBO}$	$V_{CB} = 200V, I_E = 0$		0.25	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$		0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE} = 10V, I_C = 1mA$	60		
	$h_{FE(2)}$	$V_{CE} = 10V, I_C = 10mA$	100	200	
	$h_{FE(3)}$	$V_{CE} = 10V, I_C = 30mA$	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

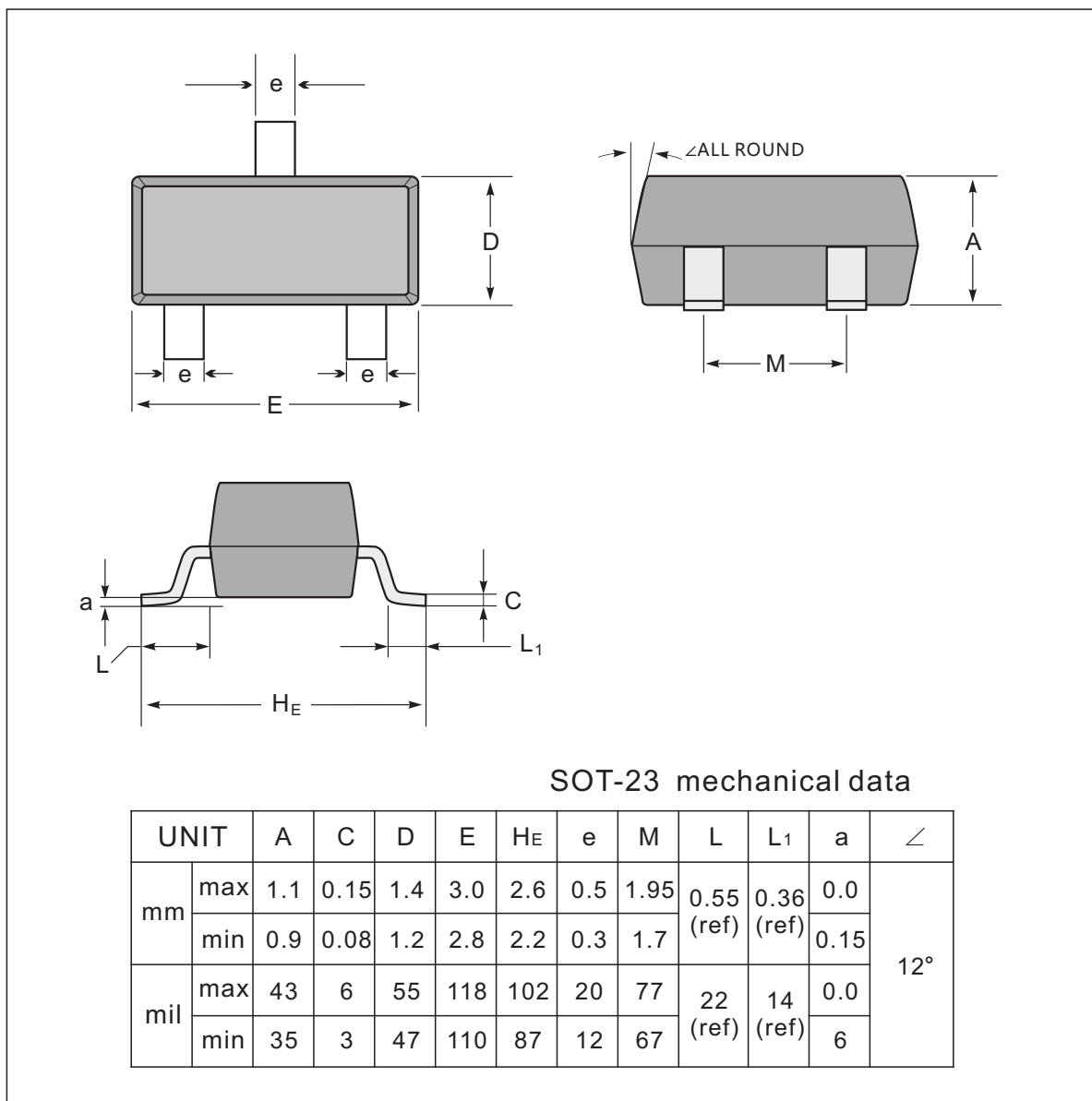


### TYPICAL CHARACTERISTICS

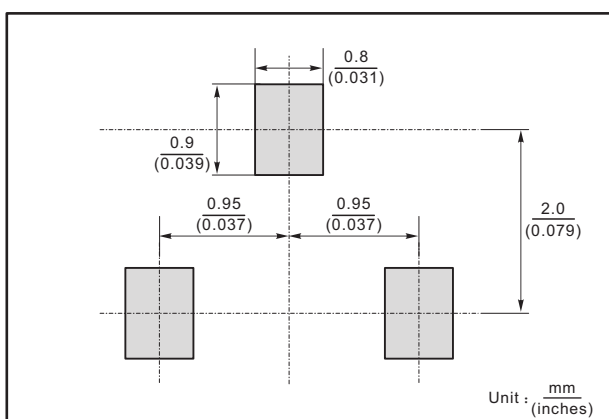




### SOT-23 Package Outline Dimensions



#### The recommended mounting pad size



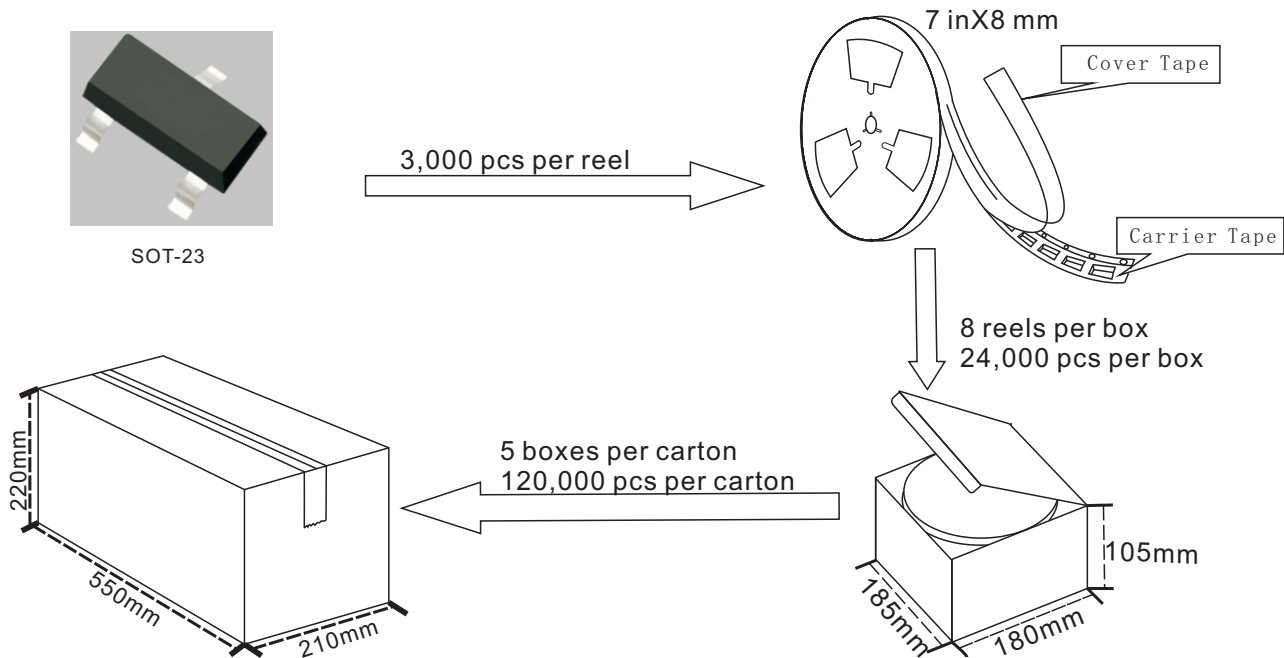
#### Marking

Type number	Marking code
MMBTA42	1D

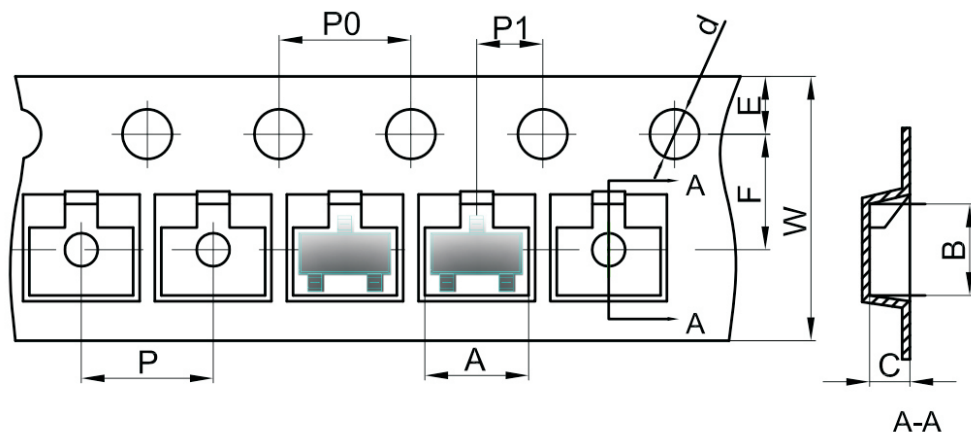


## SOT-23 Packing

1. The method of packaging and dimension are shown as below figure. (Dimension in mm)



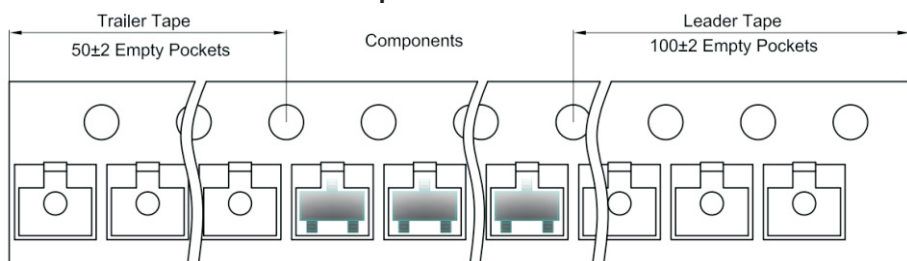
### SOT-23 Embossed Carrier Tape



Dimensions are in millimeter

Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-23	3.15	2.77	1.22	Ø1.50	1.75	3.50	4.00	4.00	2.00	8.00

### SOT-23 Tape Leader and Trailer



单击下面可查看定价，库存，交付和生命周期等信息

[>>JINGDAO\(晶导微\)](#)