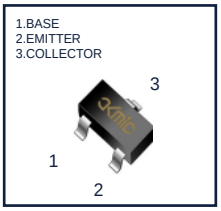
MMBTA92

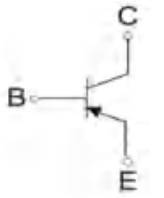
SOT23 Plastic-Encapsulate Transistors (PNP)

Features

- High voltage transistor



SOT23



Equivalent Circuit

Absolute Maximum Ratings(T_A=25℃)

Symbol	Parameter	Value	Uniat
V_{CBO}	Collector-Base Voltage	-300	V
V_{CEO}	Collector-Emitter Voltage	-300	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-0.2	A
I_{CM}	Collector Current -PulsedPulsed	-0.5	A
P_C	Collector Power Dissipation	300	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	417	℃/W
T_J,T_{stg}	Operation Junction And Storage Temperature Range	-55～+150	℃

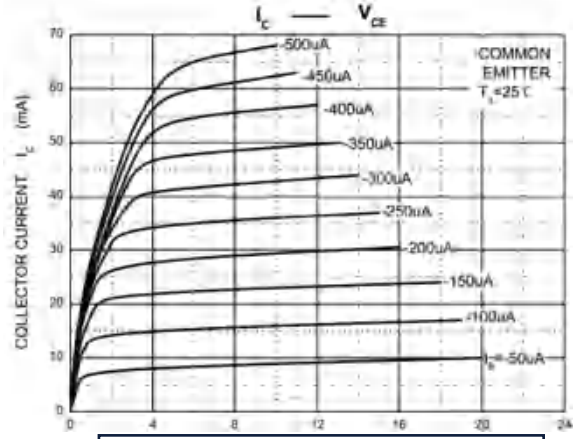
Electrical Characteristics (T_A=25℃ unless otherwise specified)

Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=100μA, I_E=0	-300			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=-1mA, I_B=0	-300			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=-100μA, I_C=0	-5			V
I_{CBO}	Collector cut-off current	V_{CB}=-200V, I_E=0			-0.25	μA
I_{EBO}	Emitter cut-off current	V_{EB}=-5V, I_C=0			-0.1	μA
$h_{FE(1)}$	DC current gain	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			
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C=-20mA, I_B=-2mA			-0.2	V
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C=-20mA, I_B=-2mA			-0.9	V
f_T	Transition frequency	V_{CE}=-20V, I_C=-10mA, f=30MHz	50			MHz

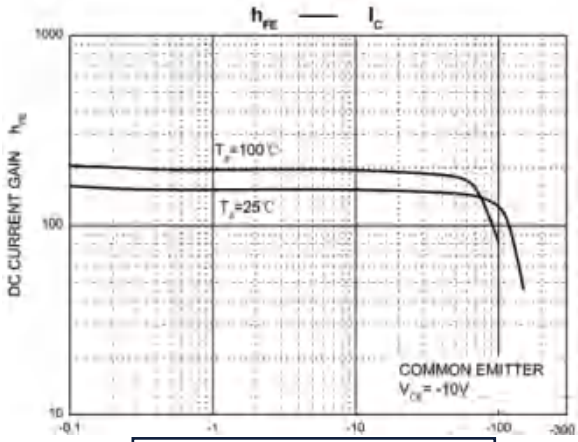
Ordering information

Product ID	Pack	Naming rule	Marking	hFE(1)	Qty(PCS)
MMBTA92	SOT23	MMBTA92 (产品名称 product name)	2D	100~200	3000

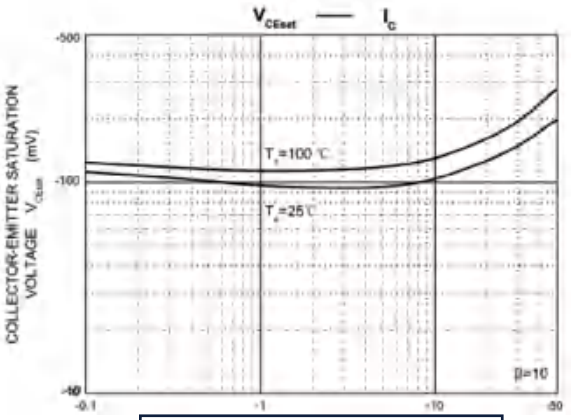
Typical Characteristics



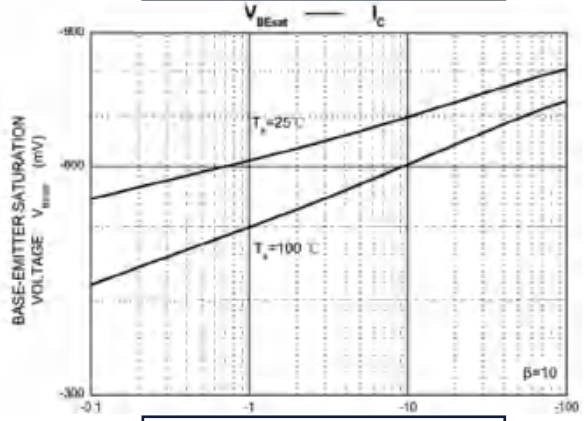
COLLECTOR-EMITTER VOLTAGE V_{CE}(V)



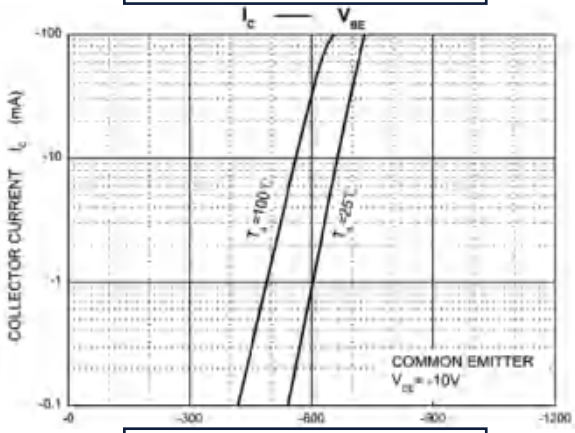
COLLECTOR CURRENT I_C(mA)



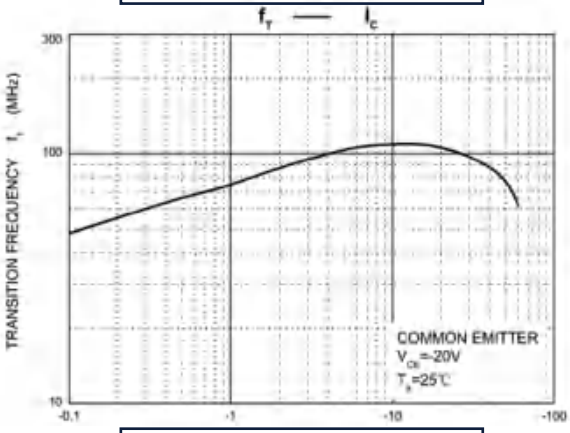
COLLECTOR CURRENT I_C(mA)



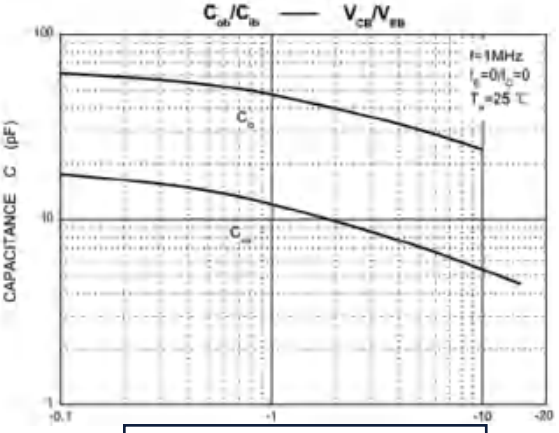
COLLECTOR CURRENT I_C(mA)



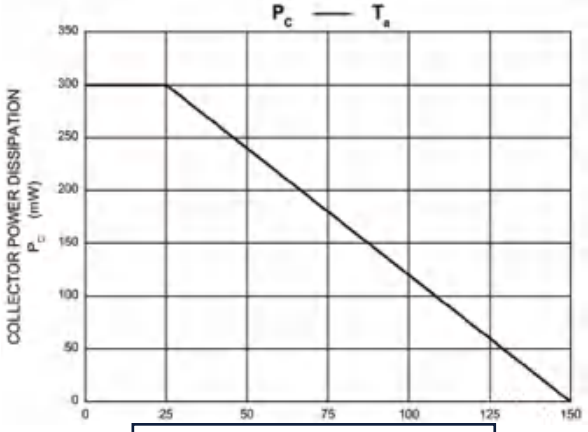
BASE-EMMITER VOLTAGE V_{BE}(V)



COLLECTOR CURRENT I_C(mA)

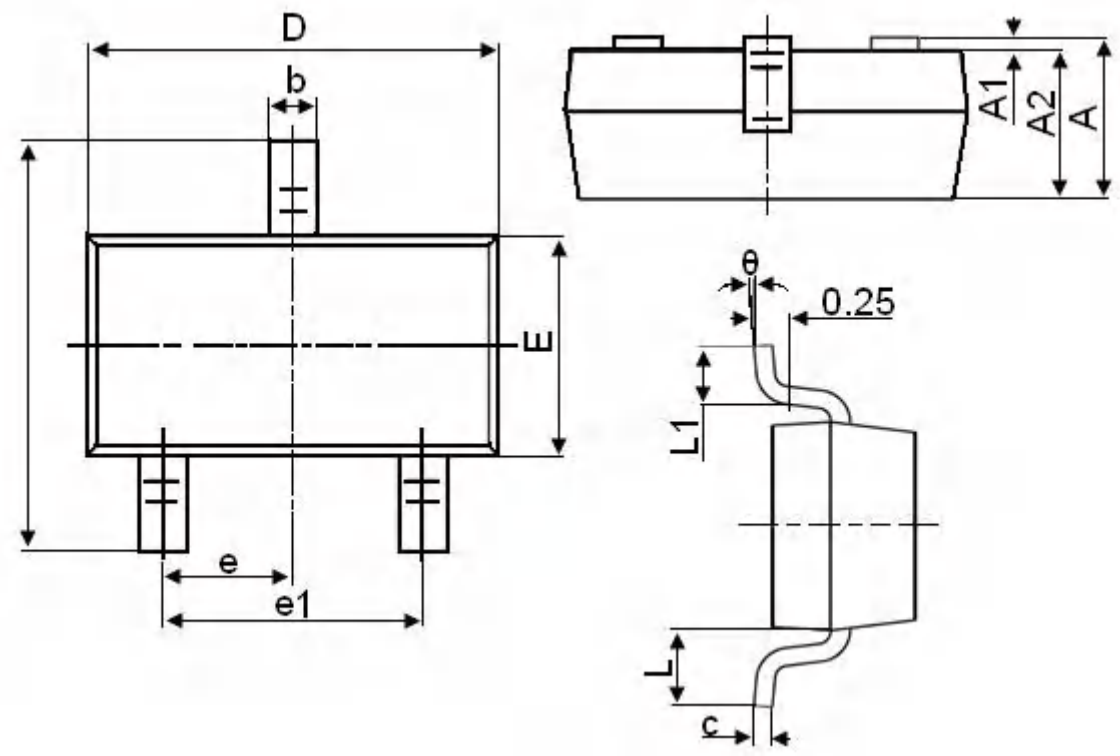


REVERSE VOLTAGE V (V)



AMBIENT TEMPERATURE Ta(°C)

SOT23 Package Outline Dimensions



Symbol	Dimensions in Millimeters	
	mm	
	Min	Max
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°