

MMBTA92

PNP TRANSISTOR

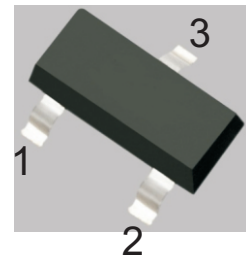
FEATURES

- High Voltage Transistor

MAXIMUM RATINGS (Ta=25°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	-200	mA
Collector Current -Pulsed	I_{CM}	-500	mA
Collector Power Dissipation	P_C	300	mW
Junction Temperature	T_J	150	°C
Storage Temperature	T_{stg}	-55~+150	°C
Thermal Resistance, Junction to Ambient	R_{thJA}	410	°C/W

SOT-23

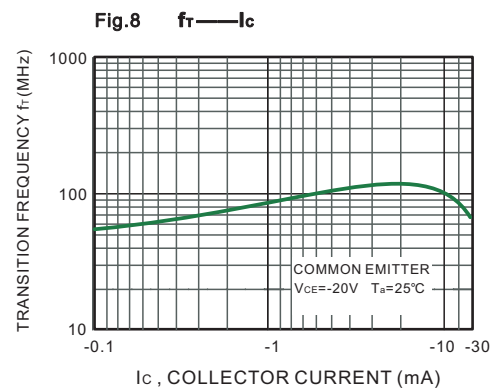
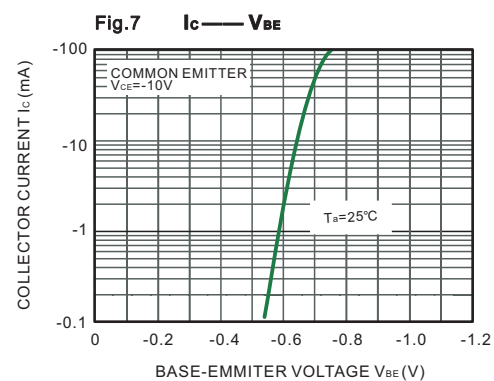
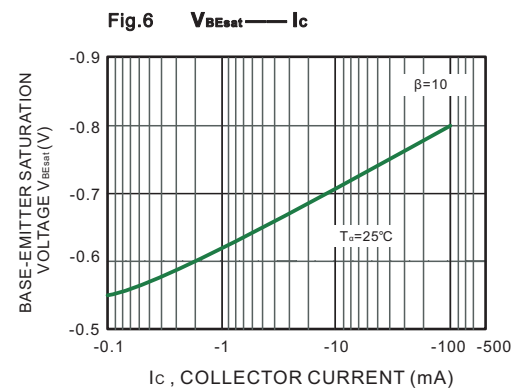
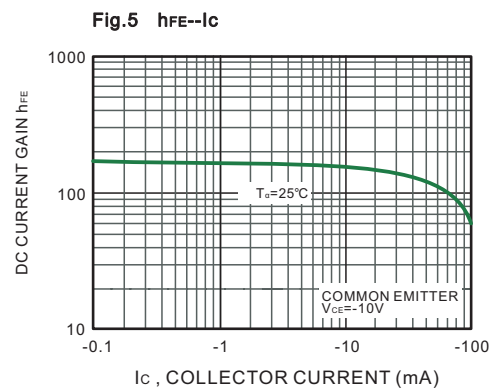
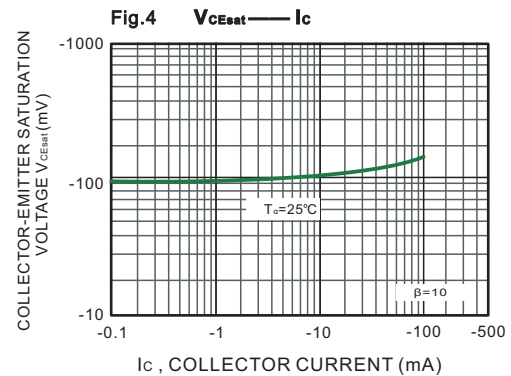
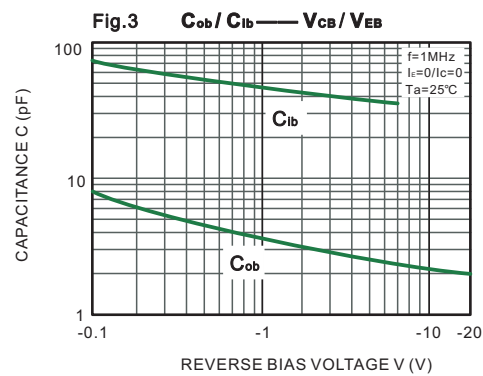
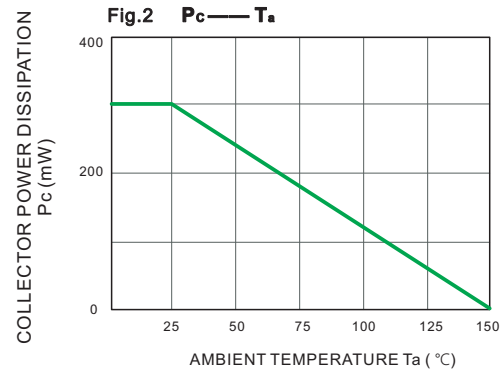
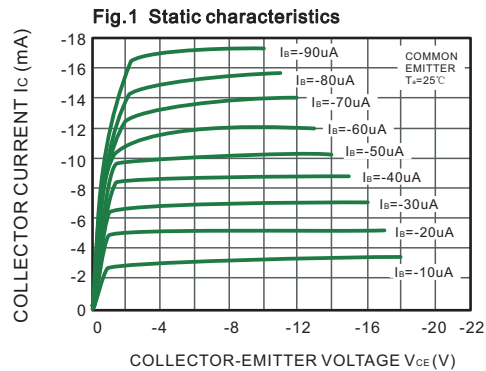


1.BASE
2.EMITTER
3.COLLECTOR

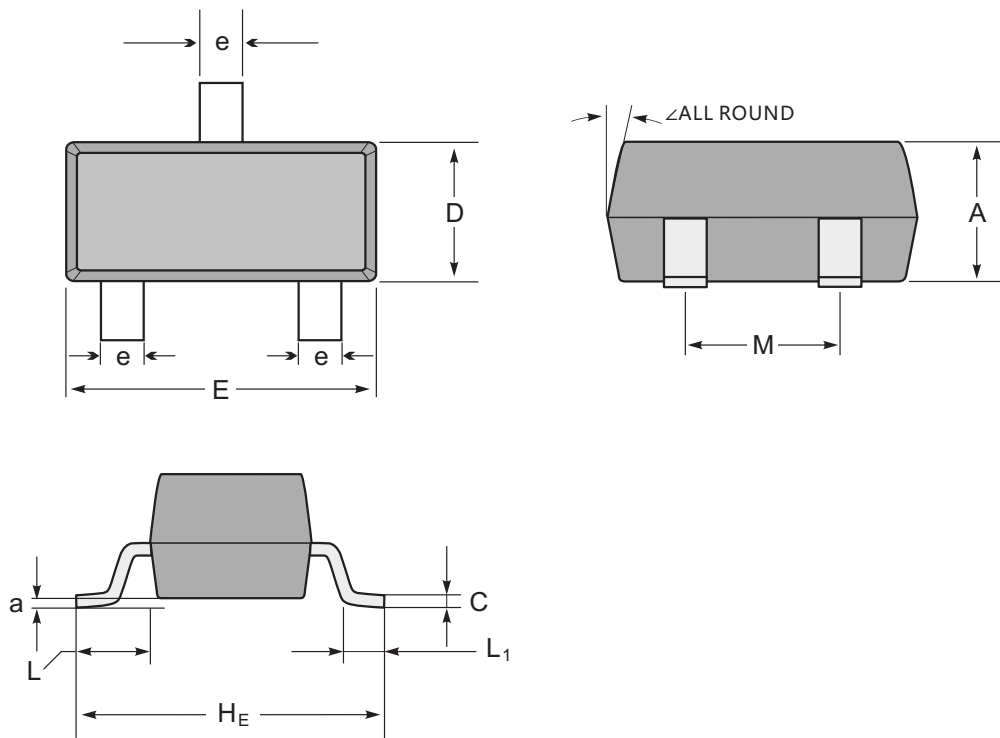
ELECTRICAL CHARACTERISTICS (TA = 25°C unless otherwise noted.)

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	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$		-0.1	μA
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



SOT-23 mechanical data

UNIT		A	C	D	E	H _E	e	M	L	L ₁	a	∠
mm	max	1.1	0.15	1.4	3.0	2.6	0.5	1.95	0.55 (ref)	0.36 (ref)	0.0	12°
	min	0.9	0.08	1.2	2.8	2.2	0.3	1.7			0.15	
mil	max	43	6	55	118	102	20	77	22 (ref)	14 (ref)	0.0	
	min	35	3	47	110	87	12	67			6	

The recommended mounting pad size

