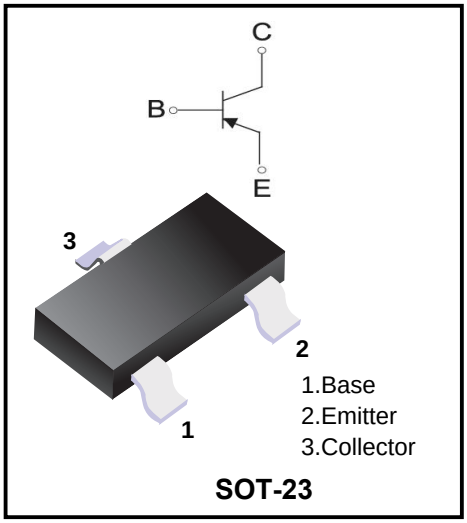
Plastic-Encapsulate Transistors

TRANSISTOR(PNP)



FEATURES

- High Voltage Transistor

Marking Code	
MMBTA92	2D

MAXIMUMRATINGS(Ta=25°Cunless otherwise noted)

Parameters	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	℃
Storage Temperature	T_{stg}	-55-+150	℃
Thermal resistance From junction to ambient	$R_{\theta JA}$	410	℃/W

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

Parameter	Symbols	Test Condition	Limits			Unit
			Min	Typ	Max	
Collector-base breakdown voltage	$V_{(BR)CBO}$	IC= -100uA, IE=0	-300	-	-	V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	IC= -1mA, IB=0	-300	-	-	V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	IE= -100uA, IC=0	-5	-	-	V
Collector cut-off current	I_{CBO}	VCB=-200V, IE=0	-	-	-0.25	uA
Emitter cut-off current	I_{EBO}	VEB=-5V, IC=0	-	-	-0.1	uA
DC current gain	$h_{FE(1)}$	VCE= -10V, IC= -1mA	60	-	-	
	$h_{FE(2)}$	VCE= -10V, IC= -10mA	100	-	200	
	$h_{FE(3)}$	VCE= -10V, IC= -30mA	60	-	-	
Collector-emitter saturation voltage	$V_{CE(sat)}$	IC= -20mA, IB= -2mA	-	-	--0.2	V
Base -emitter saturation voltage	$V_{BE(sat)}$	IC= -20mA, IB= -2mA	-	-	-0.9	V
Transition frequency	f_T	VCE= -20V, IC= -10mA,f=30MHz	50	-	-	MHz

TYPICAL CHARACTERICS

Fig.1 Static characteristics

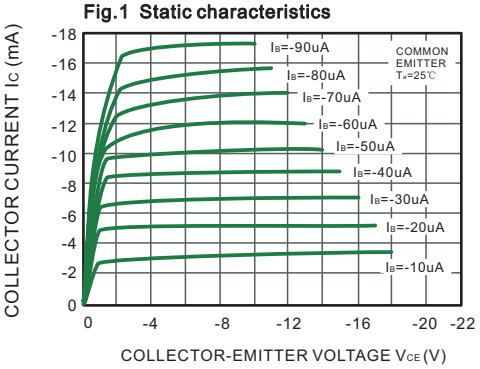


Fig.2 Pc—— Ta

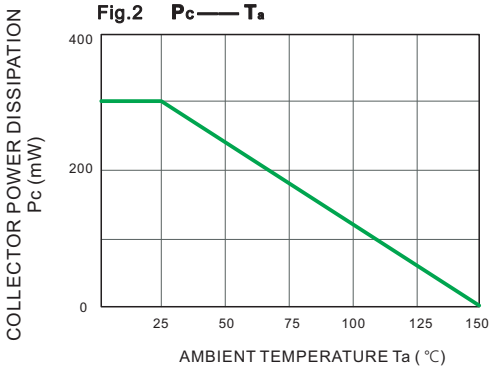


Fig.3 Cob / Cib —— VCB / VEB

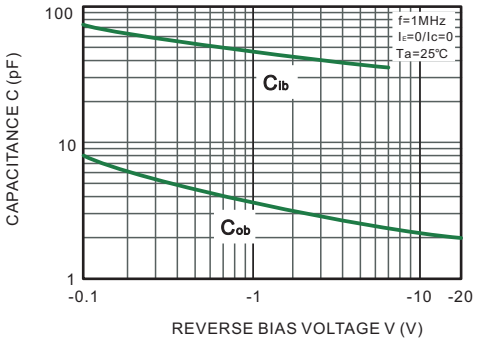


Fig.4 VCEsat —— Ic

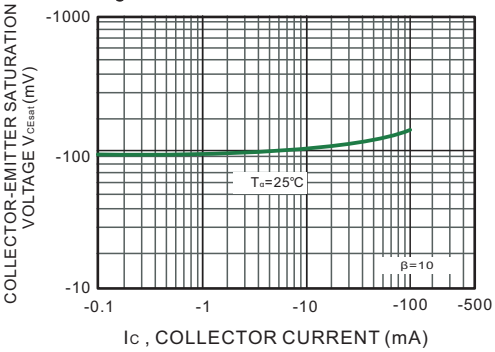


Fig.5 hFE--Ic

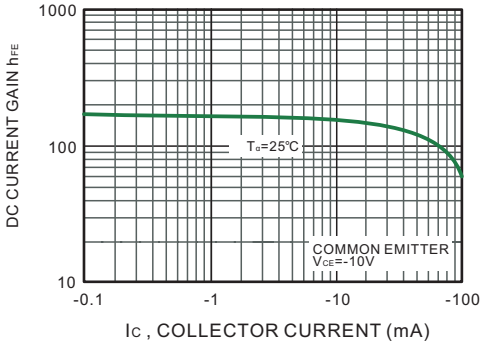


Fig.6 VBEsat —— Ic

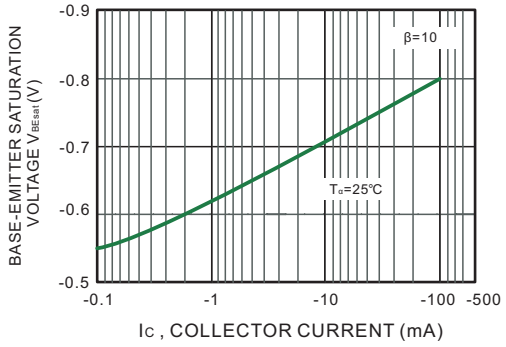


Fig.7 Ic —— VBE

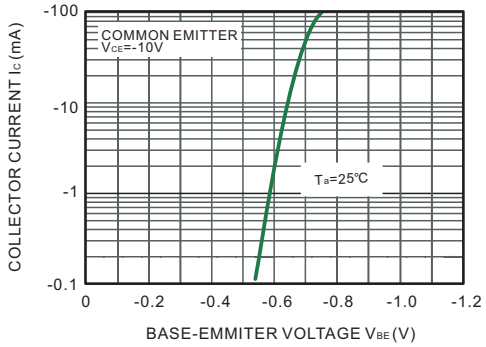
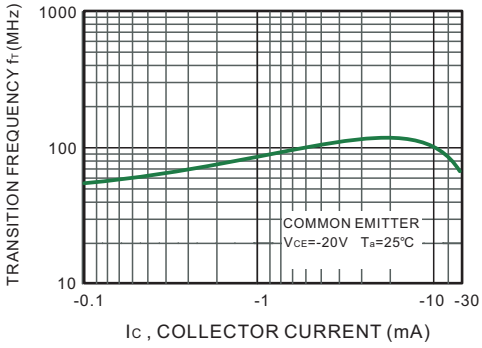


Fig.8 fT——Ic

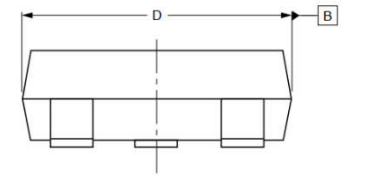


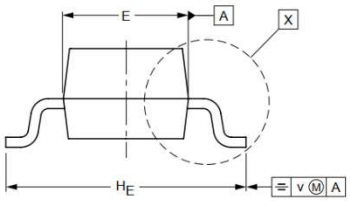
Ordering information

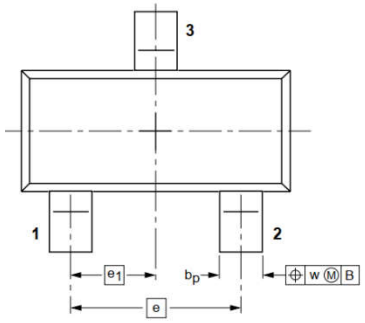
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

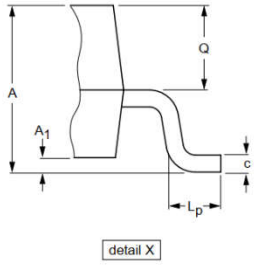
Package Dimensions

SOT-23



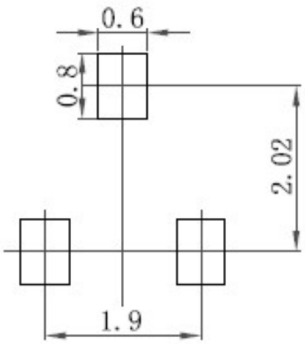






Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
E	1.9		75	
E1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



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