

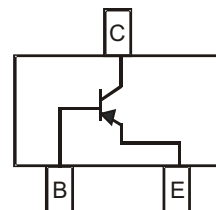
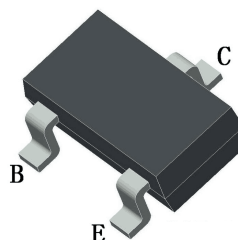
Features

- High Breakdown Voltage

SOT-23

Marking:

- 4D



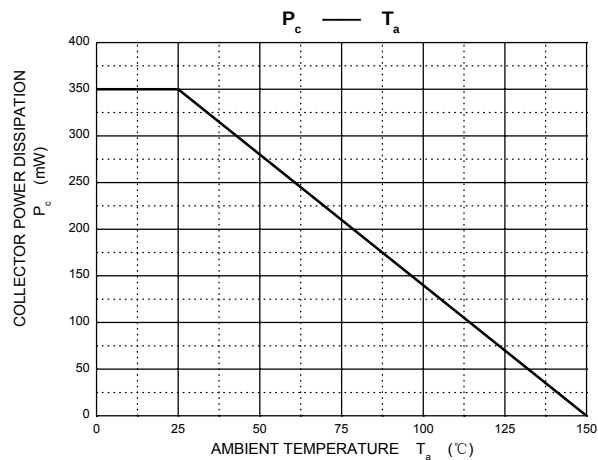
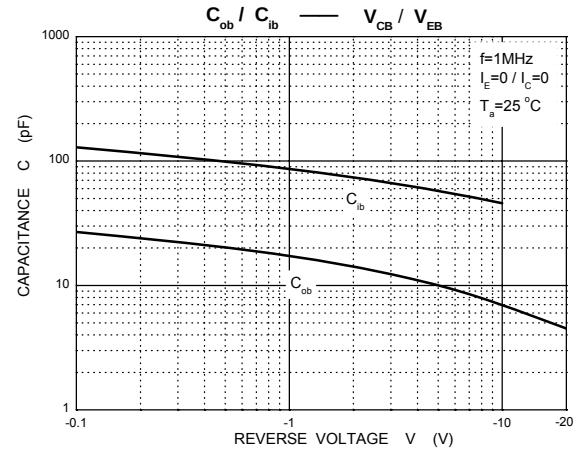
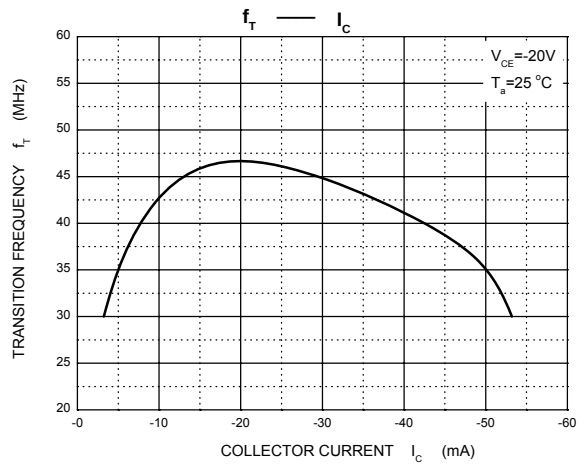
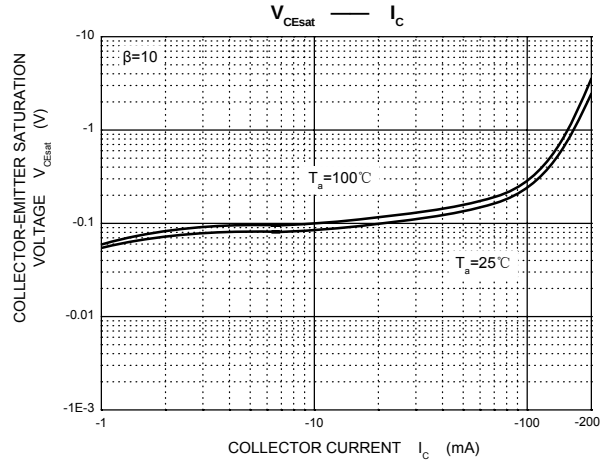
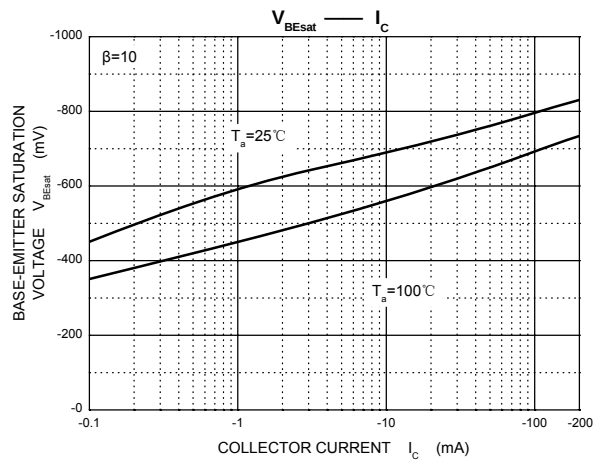
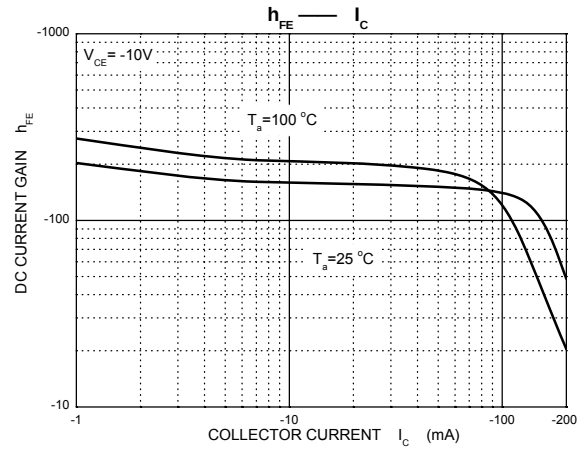
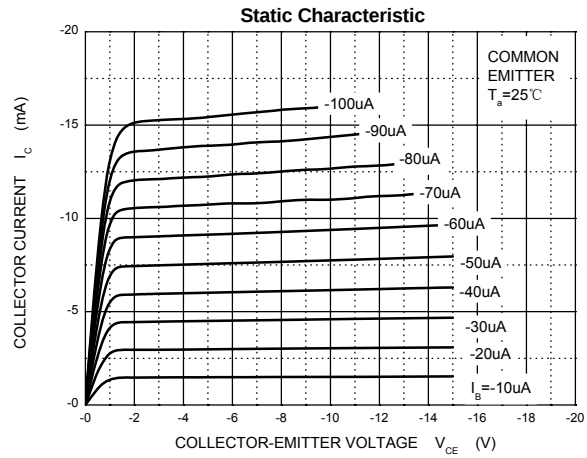
Limiting Values (Absolute Maximum Rating)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-400	V
V_{CEO}	Collector-Emitter Voltage	-400	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-300	mA
P_C	Collector Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	357	°C/W
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55~+150	°C

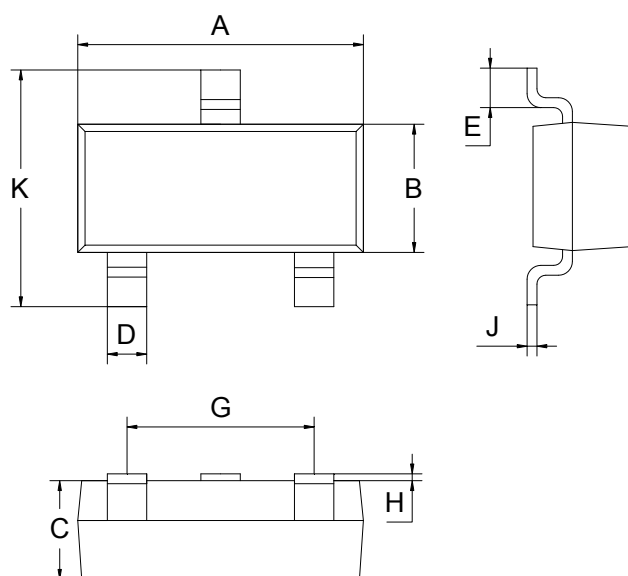
Electrical Characteristics (Ta=25°C Unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=-100\mu A, I_E=0$	-400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=-1mA, I_B=0$	-400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=-100\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-400V, I_E=0$			-0.1	μA
Collector cut-off current	I_{CEO}	$V_{CE}=-400V, I_B=0$			-5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-10V, I_C=-10mA$	80		300	
	$h_{FE(2)}$	$V_{CE}=-10V, I_C=-1mA$	70			
	$h_{FE(3)}$	$V_{CE}=-10V, I_C=-100mA$	40			
	$h_{FE(4)}$	$V_{CE}=-10V, I_C=-50mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C=-10mA, I_B=-1mA$			-0.2	V
	$V_{CE(sat)2}$	$I_C=-50mA, I_B=-5mA$			-0.3	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-10mA, I_B=-1mA$			-0.75	V
Transition frequency	f_T	$V_{CE}=-20V, I_C=-10mA, f=30MHz$	50			MHz

Typical Characteristics

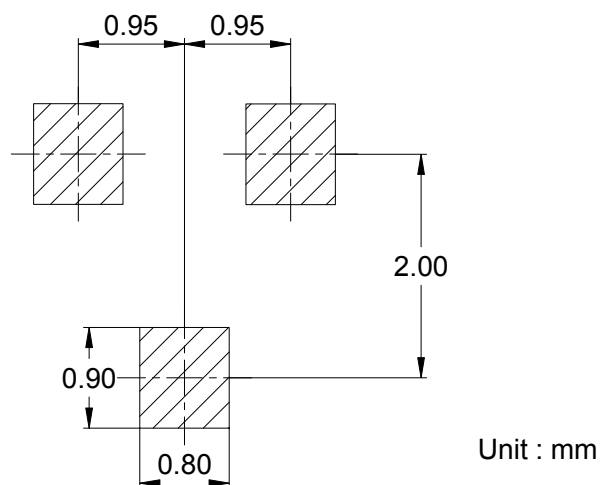


SOT-23 Package Outline Dimensions



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60
All Dimensions in mm		

SOT-23 Suggested Pad Layout



Package Information

TYPE	REEL	Reel Size	Box	Carton
MMBTA94	3000 pcs	7 Inch	45,000 pcs	180,000 pcs