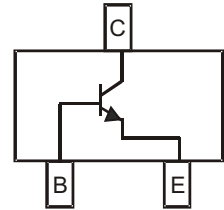
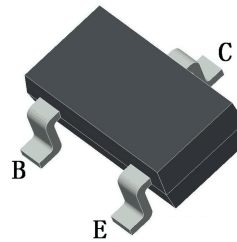


Features

- High Collector-Emitter Voltage
- Complement to MMBTA94

SOT-23



Marking:

- 3D

Limiting Values (Absolute Maximum Rating)

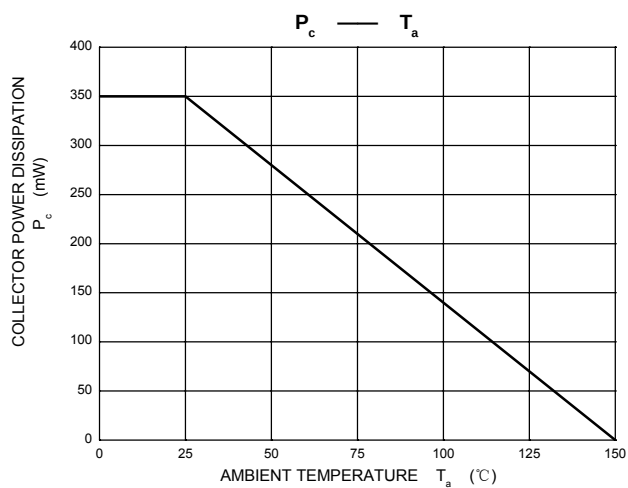
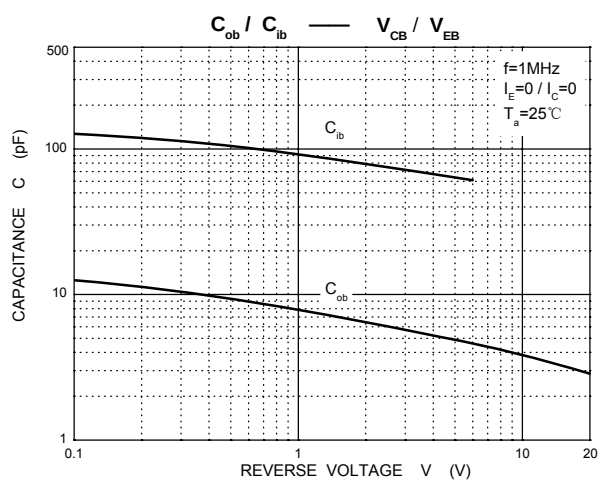
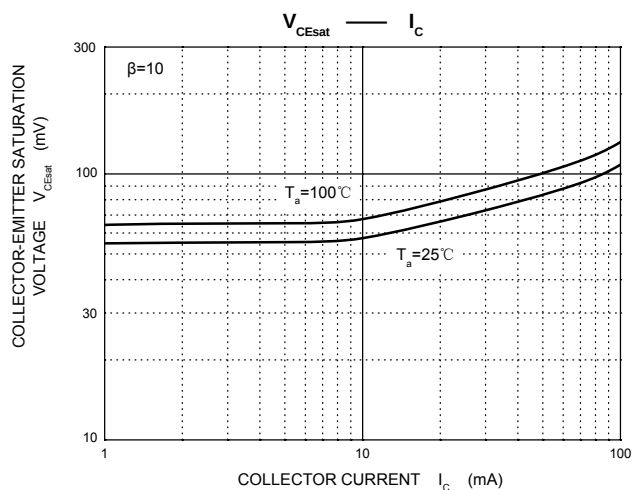
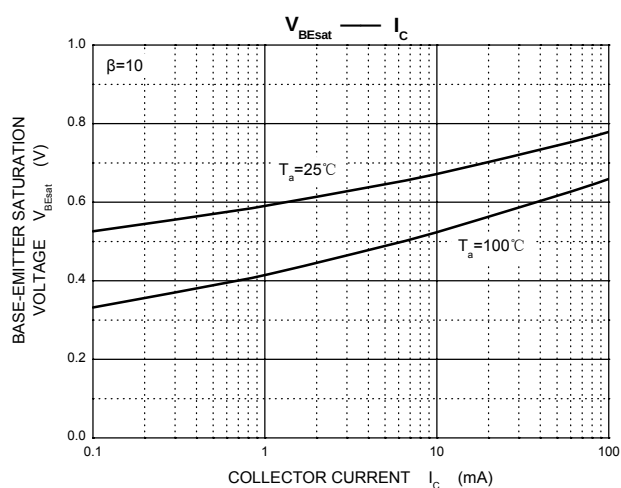
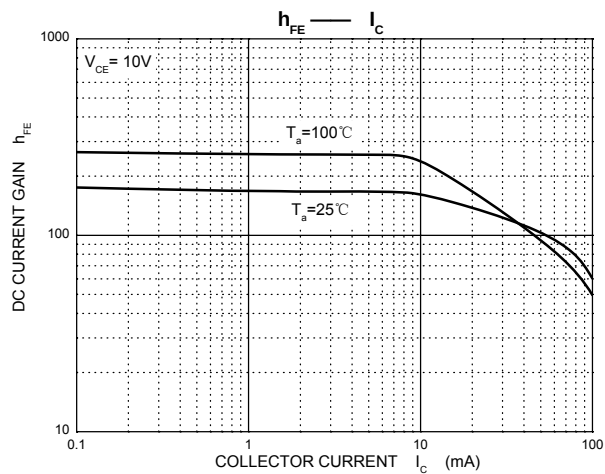
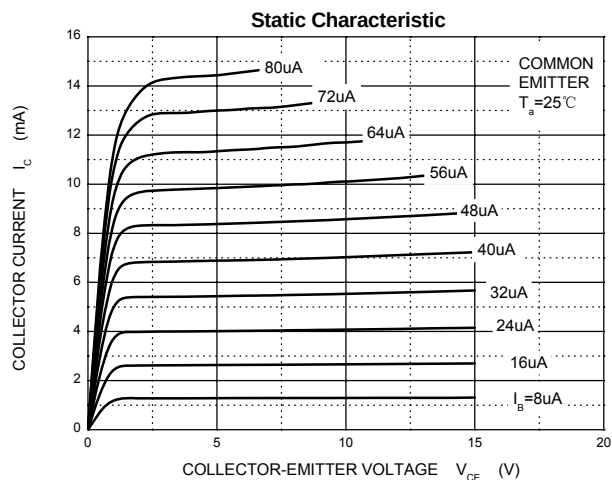
Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	400	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	200	mA
P_C	Collector Power Dissipation	350	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	357	°C/W
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55~+150	°C

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

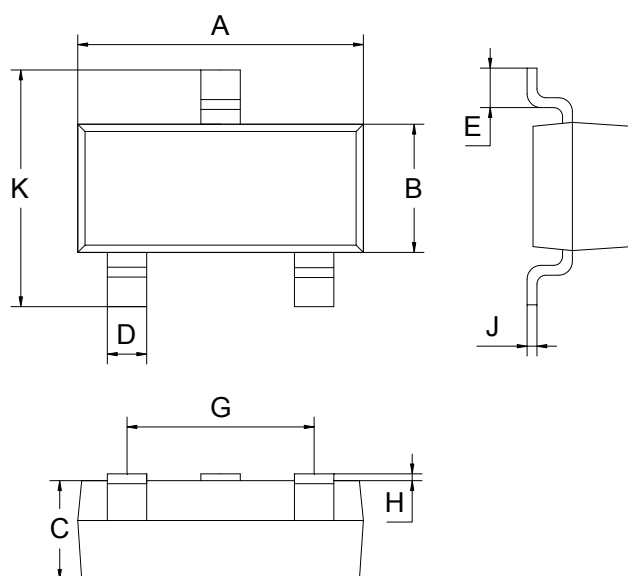
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	400			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}^*$	$I_C=1mA, I_B=0$	400			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=400V, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			0.1	μA
DC current gain	$h_{FE(1)}^*$	$V_{CE}=10V, I_C=1mA$	40			
	$h_{FE(2)}^*$	$V_{CE}=10V, I_C=10mA$	50		200	
	$h_{FE(3)}^*$	$V_{CE}=10V, I_C=50mA$	45			
	$h_{FE(4)}^*$	$V_{CE}=10V, I_C=100mA$	40			
Collector-emitter saturation voltage	$V_{CE(sat)1}^*$	$I_C=1mA, I_B=0.1mA$			0.4	V
	$V_{CE(sat)2}^*$	$I_C=10mA, I_B=1mA$			0.5	V
	$V_{CE(sat)3}^*$	$I_C=50mA, I_B=5mA$			0.75	V
Base-emitter saturation voltage	$V_{BE(sat)}^*$	$I_C=10mA, I_B=1mA$			0.75	V
Collector output capacitance	C_{ob}	$V_{CB}=20V, I_E=0, f=1MHz$			7	pF
Emitter input capacitance	C_{ib}	$V_{EB}=0.5V, I_C=0, f=1MHz$			130	pF

*Pulse test: pulse width $\leq 300\mu s$, duty cycles $\leq 2.0\%$.

Typical Characteristics

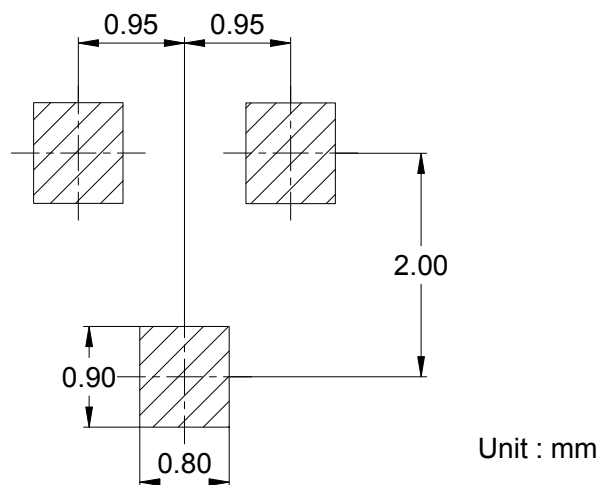


SOT-23 Package Outline Dimensions



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
MMBTA44	3000 pcs	7 Inch	45,000 pcs	180,000 pcs