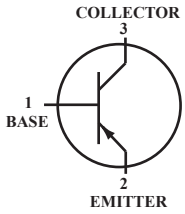
WEITRON

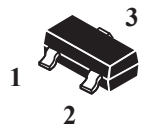
MMBTA94

High-Voltage PNP Transistor Surface Mount

Lead(Pb)-Free



SOT-23



Maximum Ratings

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	-400	Vdc
Collector-Base Voltage	V_{CBO}	-400	Vdc
Emitter-Base Voltage	V_{EBO}	-6.0	Vdc
Collector Current-Continuous	I_C	-150	mAdc

Thermal Characteristics

Characteristics	Symbol	Max	Unit
Maximum Power Dissipation Total Power Dissipation (Ta=25°C)	P_D	350	mW
Junction Temperature	T_J	+150	°C
Storage Temperature	T_{stg}	-55 to +150	°C

Device Marking

MMBTA94=4Z

Electrical Characteristics (T_A=25°C Unless Otherwise noted)

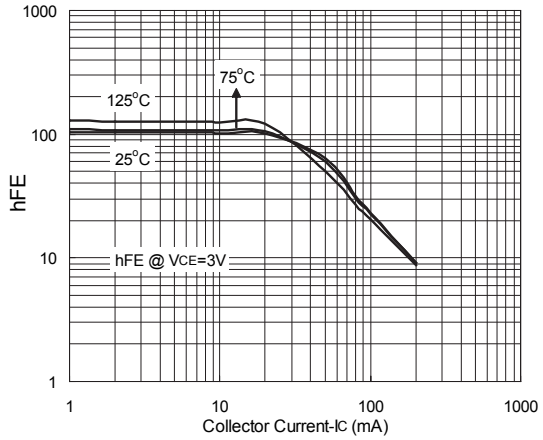
Characteristics	Symbol	Min	Max	Unit
Off Characteristics				
Collector-Emitter BreakdownVoltage (IC=-1.0mAdc. IB=0)	V(BR)CEO	-400	-	Vdc
Collector-Base Breakdown Voltage (IC=-100μAdc, IE=0)	V(BR)CBO	-400	-	Vdc
Emitter-Base Breakdown Voltage (IE=-10 uAdc, IC=0)	V(BR)EBO	-6.0	-	Vdc
Collect Cutoff Current (VCB= -400Vdc, IE=0)	I_{CBO}	-	-100	nAdc
Emitte Cutoff Current (VEB=-6V, IC=0)	I_{EBO}	-	-100	nAdc
Emitte Cutoff Current (VCE=-400V, VEB=0V)	I_{CES}	-	-500	nAdc

Electrical Characteristics (T_A=25°C unless otherwise noted) (Countinued)

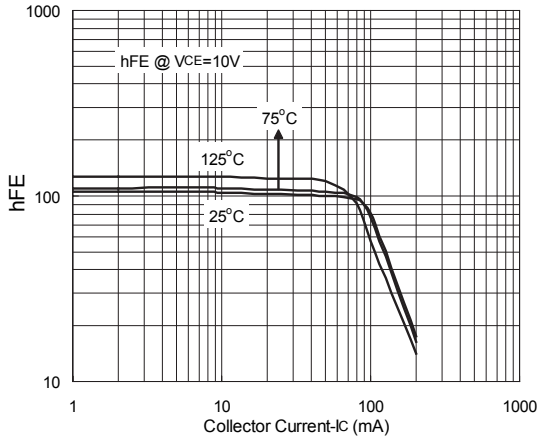
Characteristics	Symbol	Min		Max	Unit
On Characteristics					
DC Current Gain* (V_{CE}=-10Vdc, I_C= -1.0 mAdc) (V_{CE}=-10Vdc, I_C= -10 mAdc) (V_{CE}=-10Vdc, I_C= -50 mAdc) (V_{CE}=-10Vdc, I_C= -100 mAdc)	 $H_{FE(1)}$ $H_{FE(2)}$ $H_{FE(3)}$ $H_{FE(4)}$	 50 75 60 20	-	 - 200 - .	-
Collector-Emitter Saturation Voltage* (I_C= -1.0mAdc, I_B= -0.1mAdc) (I_C= -10mAdc, I_B= -1mAdc) (I_C= -50mAdc, I_B= -5mAdc)	$V_{CE(sat)}$	-	-	 0.20 0.30 0.60	Vdc
Base-Emitter Saturation Voltage* (I_C= -10 mAdc, I_B= -1.0 mAdc)	$V_{BE(sat)}$	-	-	0.90	Vdc
Output Capacitance (VCE = -10 Vdc, f=1.0 MHz)	Cob	-	4	6	pF

*Pulse Test : Pulse Width ≤ 380μS, Duty Cycle ≤ 2.0%.

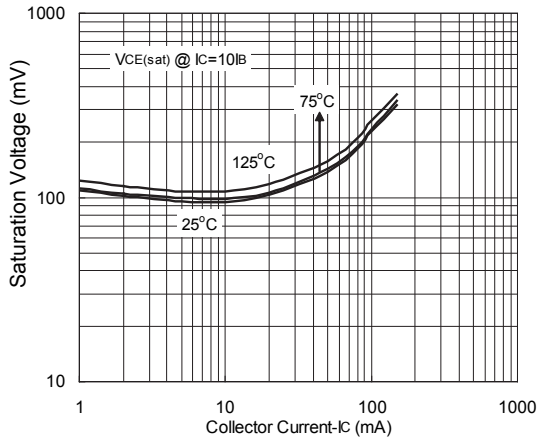
Characteristics Curve



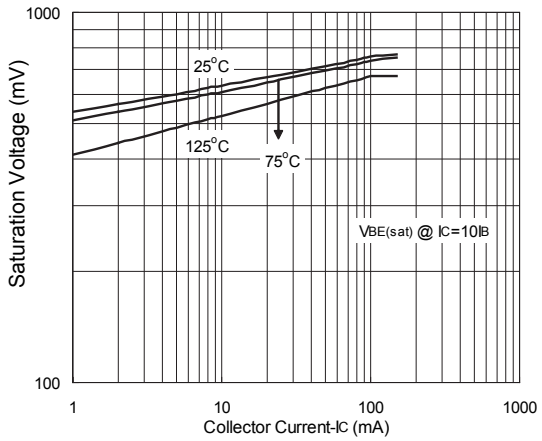
Current Gain & Collector Current



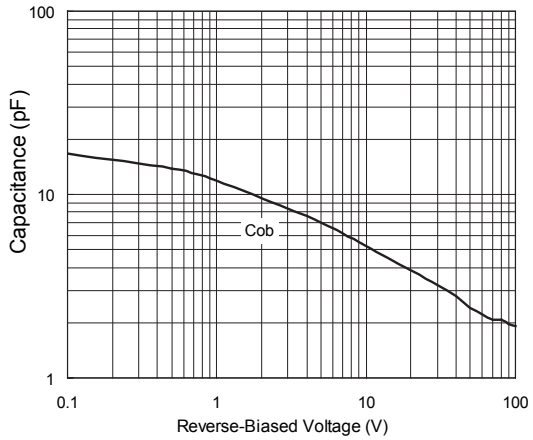
Current Gain & Collector Current



Saturation Voltage & Collector Current

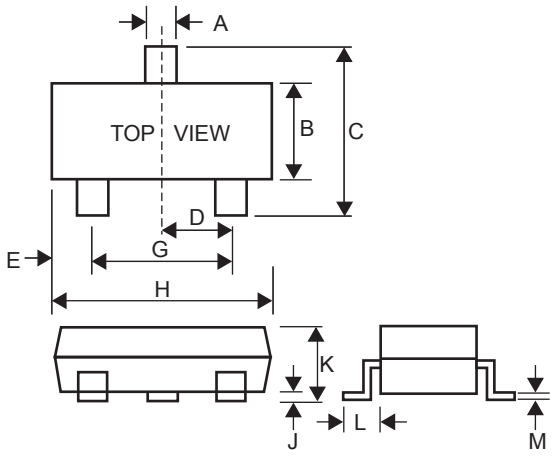


Saturation Voltage & Collector Current



Capacitance & Reverse-Biased Voltage

SOT-23 Package Outline Dimension



SOT-23		
Dim	**Min**	**Max**
A	0.35	0.51
B	1.19	1.40
C	2.10	3.00
D	0.85	1.05
E	0.46	1.00
G	1.70	2.10
H	2.70	3.10
J	0.01	0.13
K	0.89	1.10
L	0.30	0.61
M	0.076	0.25