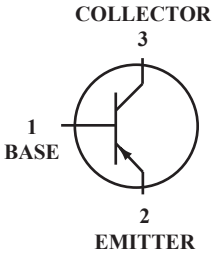
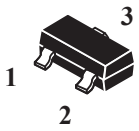
WEITRON

MMBTA92

High-Voltage PNP Transistor
Surface Mount

Lead(Pb)-Free





SOT-23

Maximum Ratings

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	-300	Vdc
Collector-Base Voltage	V_{CBO}	-300	Vdc
Emitter-Base VOltage	V_{EBO}	-5.0	Vdc
Collector Current-Continuous	I_C	-500	mAdc

Thermal Characteristics

Characteristics	Symbol	Max	Unit
Total Device Dissipation FR-5 Board (1) T_A=25°C Derate above 25°C	P_D	225 1.8	mW mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	556	°C/W
Total Device Dissipation Alumina Substrate, (2) T_A=25°C Derate above 25°C	P_D	300 2.4	mW mW/°C
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage, Temperature	$T_{J,Tstg}$	-55 to +150	°C

Device Marking

MMBTA92=2D

Electrical Characteristics (T_A=25ºC Unless Otherwise noted)

Characteristics	Symbol	Min	Max	Unit
Off Characteristics				
Collector-Emitter Breakdown Voltage(3) (I_C=-1.0mAdc. I_B=0)	$V_{(BR)CEO}$	-300	-	Vdc
Collector-Base Breakdown Voltage (I_C=-100μAdc, I_E=0)	$V_{(BR)CBO}$	-300	-	Vdc
Emitter-Base Breakdown Voltage (I_E=-10μAdc, I_C=0)	$V_{(BR)EBO}$	-5.0	-	Vdc
Collect Cutoff Current (V_{CB}= -200Vdc, I_E=0)	I_{CBO}	-	-0.25	μAdc
Emitte Cutoff Current (V_{EB}=3V, I_C=0)	I_{EBO}	-	-0.1	μAdc

1.FR-5=1.0 x 0.75 x 0.062 in.
2.Alumina=0.4 x 0.3 x 0.024 in. 99.5% alumina.
3.Pulse Test:Pulse Width ≦300 μS, Duty Cycle ≦2.0%.

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

Characteristics	Symbol	Min	Max	Unit
On Characteristics				
DC Current Gain (I_C= -1.0 mAdc, V_{CE}= -10Vdc) (I_C= -10 mAdc, V_{CE}= -10Vdc) (I_C= -30 mAdc, V_{CE}= -10Vdc)	 H_{FE}(1) H_{FE}(2) H_{FE}(3)	 25 100 25	 - 200 -	-
Collector-Emitter Saturation Voltage (3) (I_C= -20 mAdc, I_B= -2.0mAdc)	$V_{CE(sat)}$	-	0.5	Vdc
Base-Emitter Saturation Voltage (3) (I_C= -20 mAdc, I_B= -2.0 mAdc)	$V_{BE(sat)}$	-	0.9	Vdc
Current-Gain-Bandwidth Product (I_C= -10 mAdc, V_{CE}= -5 Vdc, f=30MHz)	f_T	50	-	MHz

Typical Characteristics

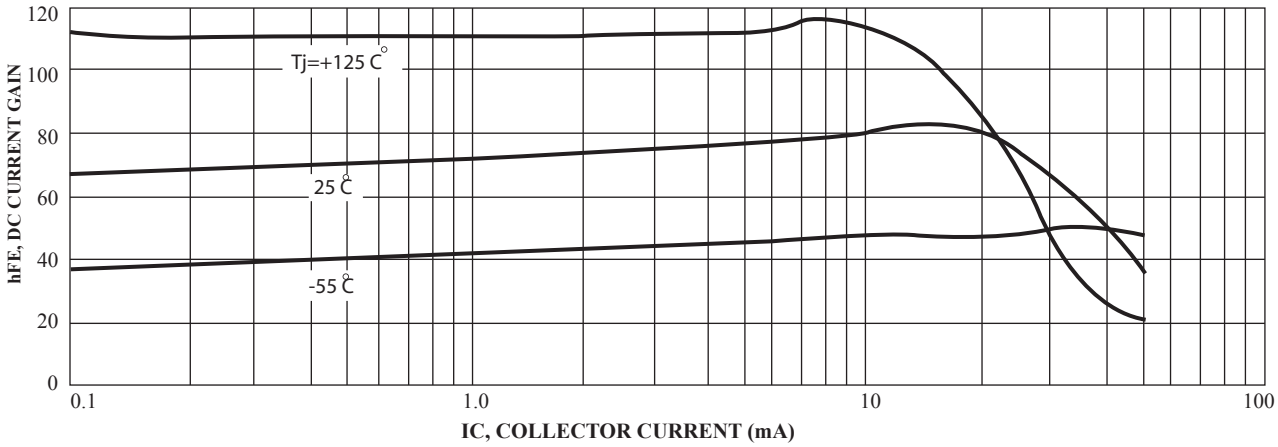


Figure 1, DC Current Gain

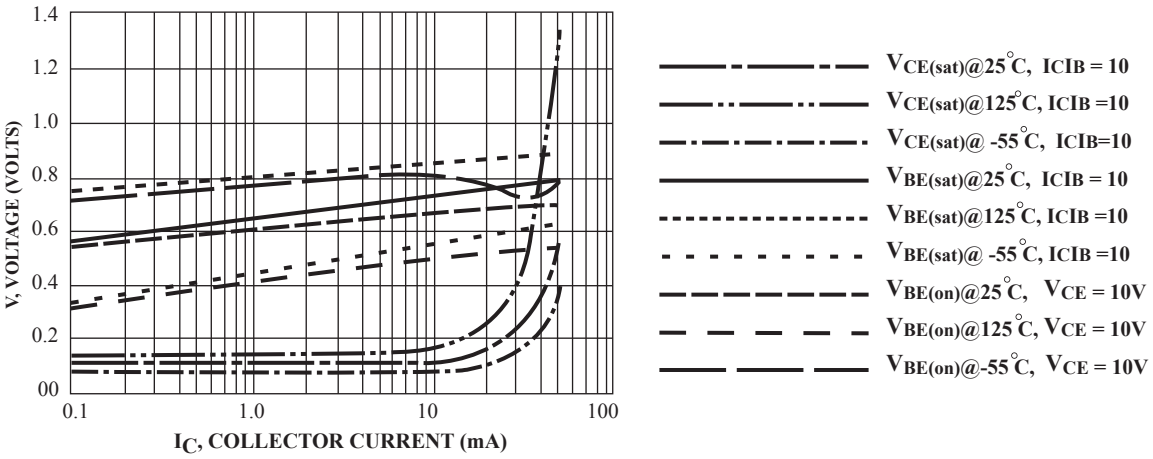


Figure 2, "On"Voltages

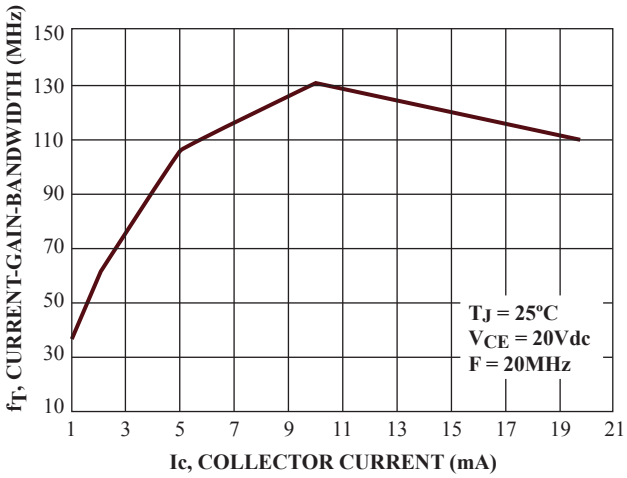
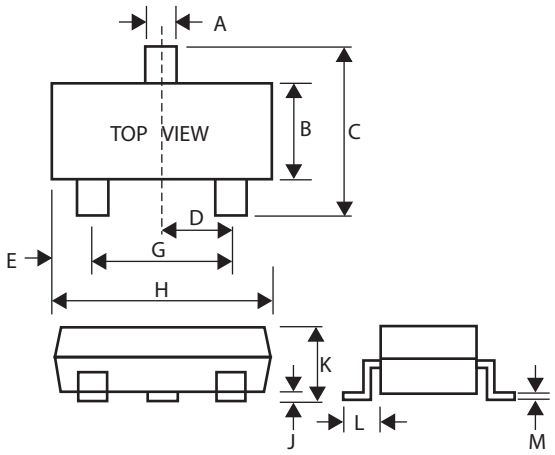


Figure 3, Current-Gain- Bandwidth

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