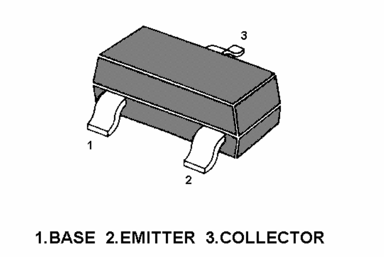
MMBTSA1979

PNP Silicon Epitaxial Planar Transistor

For medium power amplifier applications

The transistor is subdivided into two groups,
O and Y according to its DC current gain.



SOT-23 Plastic Package

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	40	V
Collector Emitter Voltage	$-V_{CEO}$	32	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	500	mA
Power Dissipation	P_{tot}	200	mW
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_S	- 55 to + 150	°C

Characteristics at T_{amb} = 25 °C

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE}$ = 1 V, $-I_C$ = 100 mA O Y	h_{FE} h_{FE}	70 120	- -	140 240	- -
Collector Base Breakdown Voltage at $-I_C$ = 100 µA	$-V_{(BR)CBO}$	40	-	-	V
Collector Emitter Breakdown Voltage at $-I_C$ = 1 mA	$-V_{(BR)CEO}$	32	-	-	V
Emitter Base Breakdown Voltage at $-I_E$ = 10 µA	$-V_{(BR)EBO}$	5	-	-	V
Collector Cutoff Current at $-V_{CB}$ = 40 V	$-I_{CBO}$	-	-	0.1	µA
Emitter Cutoff Current at $-V_{EB}$ = 5 V	$-I_{EBO}$	-	-	0.1	µA
Collector Saturation Voltage at $-I_C$ = 100 mA, $-I_B$ = 10 mA	$-V_{CE(sat)}$	-	-	0.25	V
Transition Frequency at $-V_{CE}$ = 6 V, $-I_C$ = 20 mA	f_T	-	200	-	MHz
Collector Output Capacitance at $-V_{CB}$ = 6 V, f = 1 MHz	C_{ob}	-	7.5	-	pF

Fig. 1 P_C - T_a

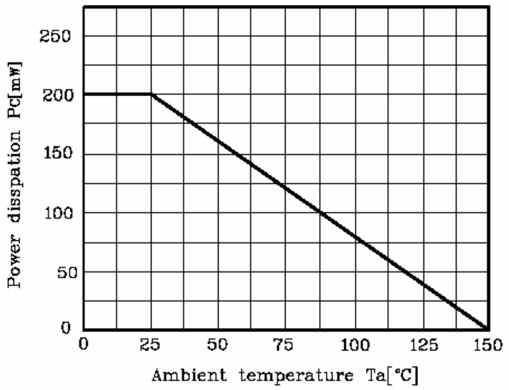


Fig. 2 I_C - V_{BE}

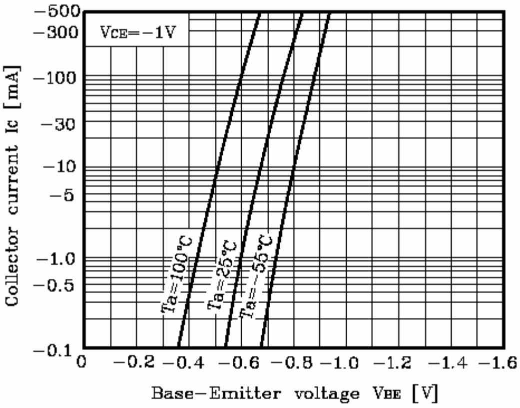


Fig. 3 I_C - V_{CE}

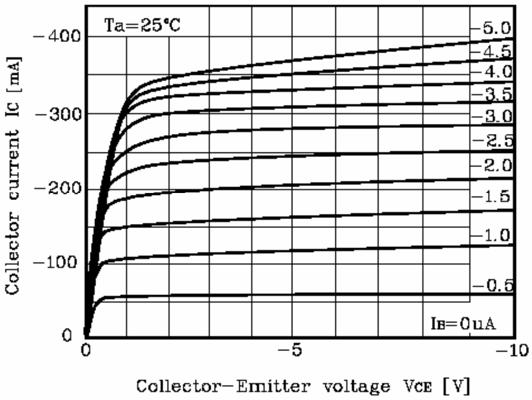


Fig. 4 $V_{CE(sat)}$ - I_C

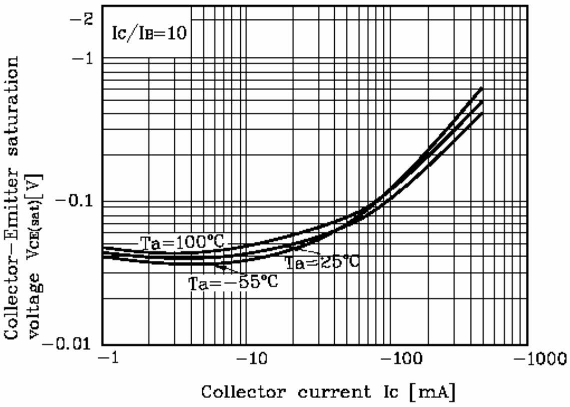


Fig. 5 h_{FE} - I_C

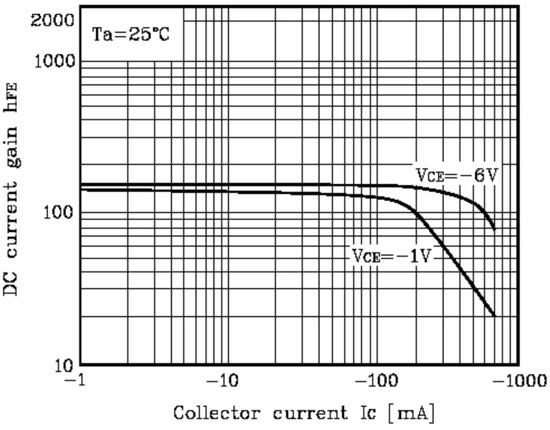


Fig. 6 h_{FE} - I_C