



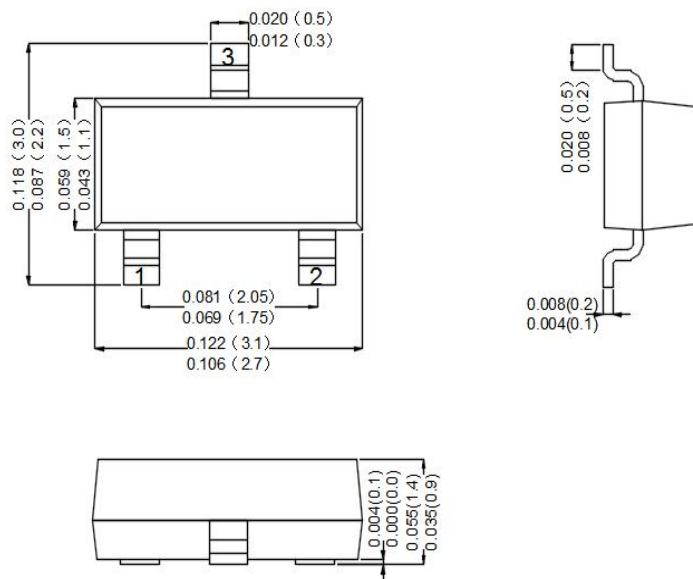
Features

- For medium power amplifier applications
- The transistor is subdivided into two groups, O and Y according to its DC current gain.

SOT-23

Mechanical Data

- Case: Molded Plastic, SOT-23
- Epoxy: UL 94V-0 rate flame retardant
- Terminals: Plated Leads Solderable per MIL-STD-750, Method-2026.
- Marking: marked on body
- Mounting Position : Any.
- Equivalent Circuit:



Dimensions in inches and (millimeters)

Maximum Ratings Maximum Ratings (Rating at 25°C ambient temperature unless otherwise specified.)

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



MMBTSA1979

PNP Silicon Epitaxial Planar Transistor

Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified.)

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



Rating And Characteristic Curves

Fig. 1 $P_C - T_a$

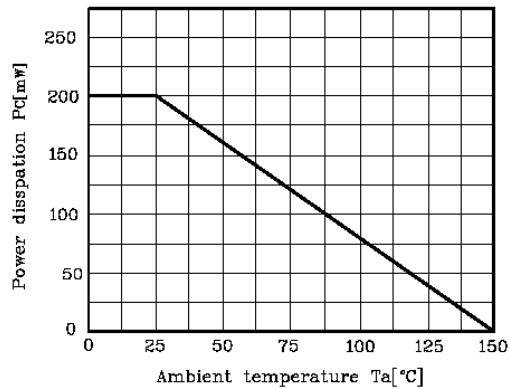


Fig. 2 $I_C - V_{BE}$

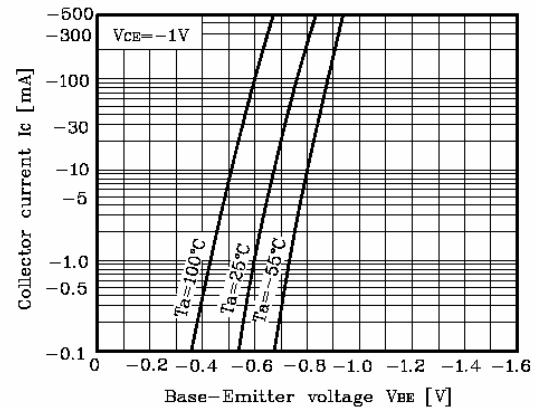


Fig. 3 $I_C - V_{CE}$

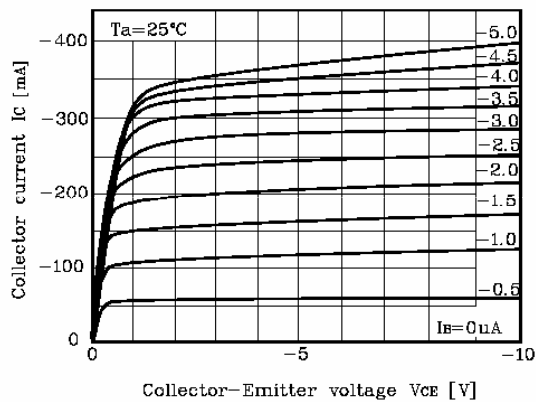


Fig. 4 $V_{CE(sat)} - I_C$

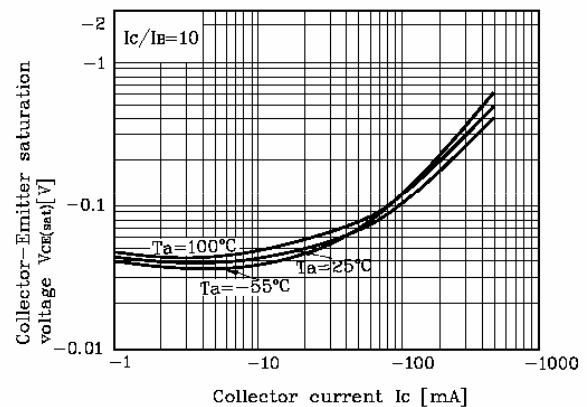


Fig. 5 $h_{FE} - I_C$

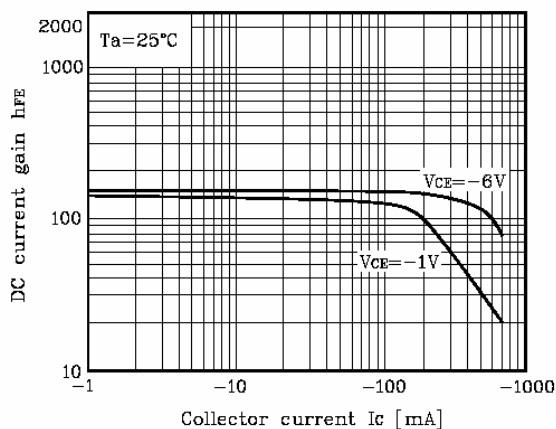
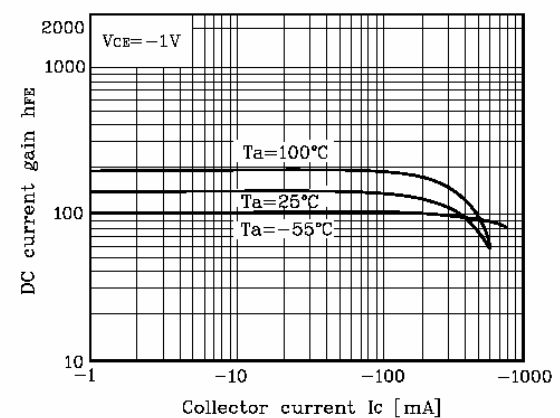


Fig. 6 $h_{FE} - I_C$





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