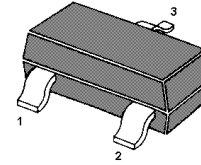


MMBTSA1979

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.



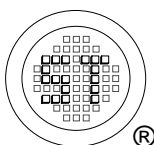
1.BASE 2.EMITTER 3.COLLECTOR
SOT-23 Plastic Package

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

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	$^\circ\text{C}$
Storage Temperature Range	T_{Stg}	- 55 to + 150	$^\circ\text{C}$

Characteristics at $T_{amb} = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{CE} = 1\text{ V}$, $-I_C = 100\text{ mA}$	O	h_{FE}	70	-	140	-
	Y	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	



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Dated : 04/08/2006

Fig. 1 $P_C - T_a$

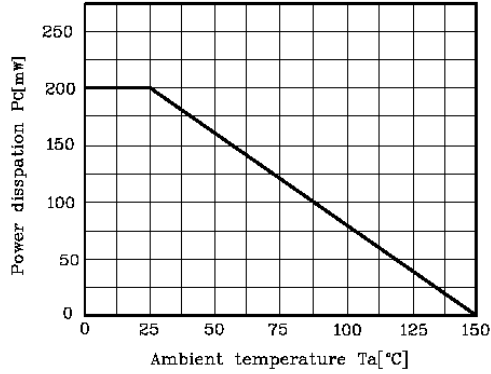


Fig. 2 $I_C - V_{BE}$

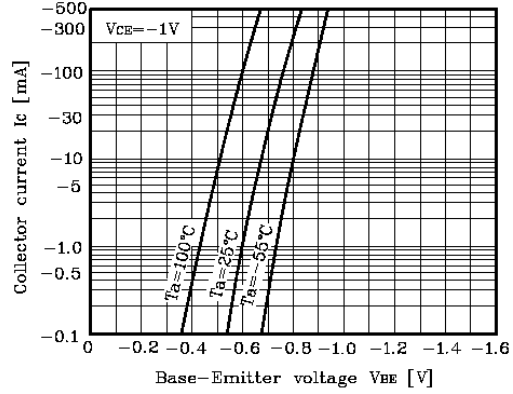


Fig. 3 $I_C - V_{CE}$

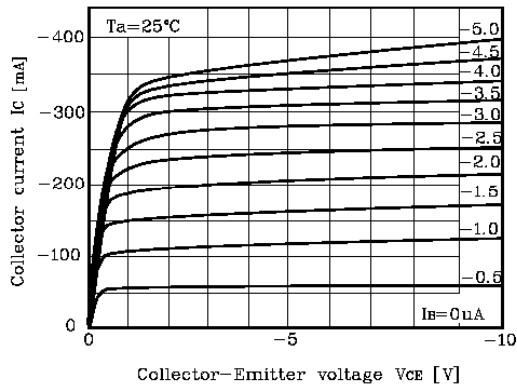


Fig. 4 $V_{CE(sat)} - I_C$

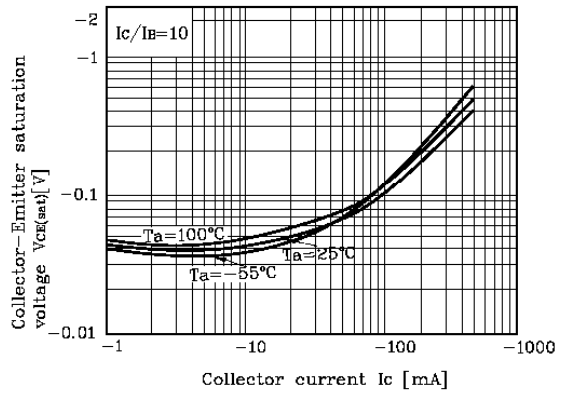


Fig. 5 $h_{FE} - I_C$

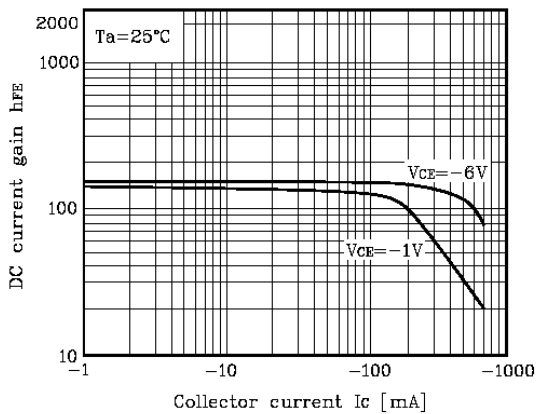
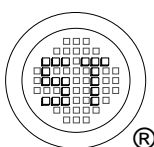
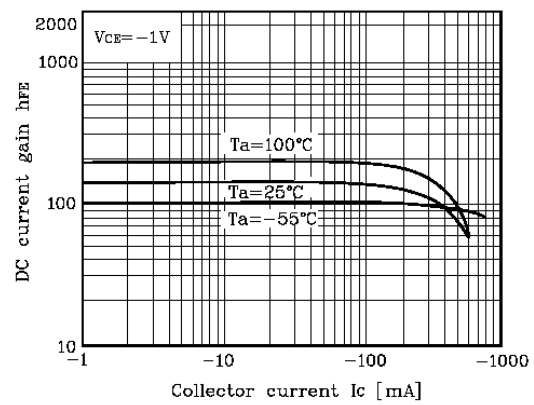


Fig. 6 $h_{FE} - I_C$



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