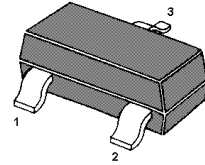


# MMBTSA1182

## PNP Silicon Epitaxial Planar Transistor

for low frequency power amplifier applications

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



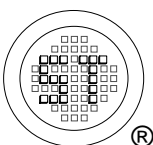
1.BASE 2.EMITTER 3.COLLECTOR  
SOT-23 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	35	V
Collector Emitter Voltage	$-V_{CEO}$	30	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 $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $-V_{CE} = 1\text{ V}$ , $-I_C = 100\text{ mA}$  at $-V_{CE} = 6\text{ V}$ , $-I_C = 400\text{ mA}$	O	$h_{FE}$	70	-	140	-
	Y	$h_{FE}$	120	-	240	-
		$h_{FE}$	25	-	-	-
Collector Cutoff Current at $-V_{CB} = 35\text{ V}$	$-I_{CBO}$	-	-	0.1	$\mu\text{A}$	
Emitter Cutoff Current at $-V_{EB} = 5\text{ V}$	$-I_{EBO}$	-	-	0.1	$\mu\text{A}$	
Collector Emitter Saturation Voltage at $-I_C = 100\text{ mA}$ , $-I_B = 10\text{ mA}$	$-V_{CE(sat)}$	-	-	0.25	V	
Base Emitter On Voltage at $-V_{CE} = 1\text{ V}$ , $-I_C = 100\text{ mA}$	$-V_{BE(on)}$	-	-	1	V	
Transition Frequency at $-V_{CE} = 6\text{ V}$ , $-I_C = 20\text{ mA}$	$f_T$	-	200	-	MHz	
Collector Output Capacitance at $-V_{CB} = 6\text{ V}$ , $f = 1\text{ MHz}$	$C_{ob}$	-	13	-	pF	



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Dated : 15/11/2006

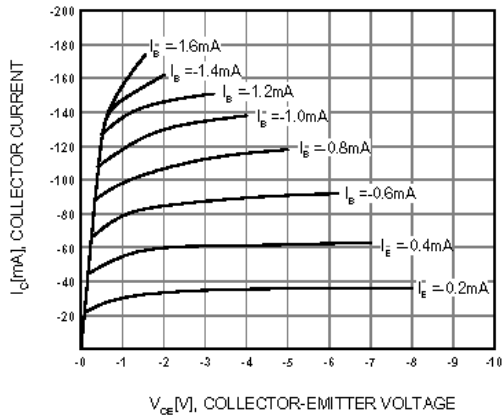


Figure 1. Static Characteristic

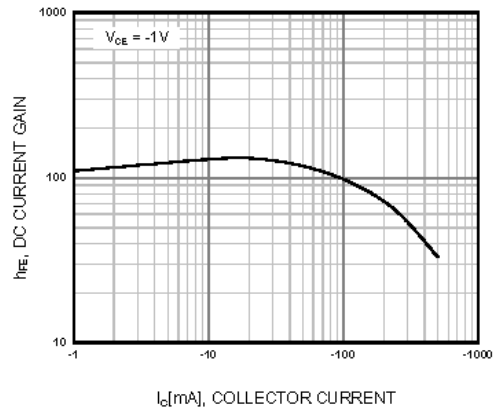


Figure 2. DC current Gain

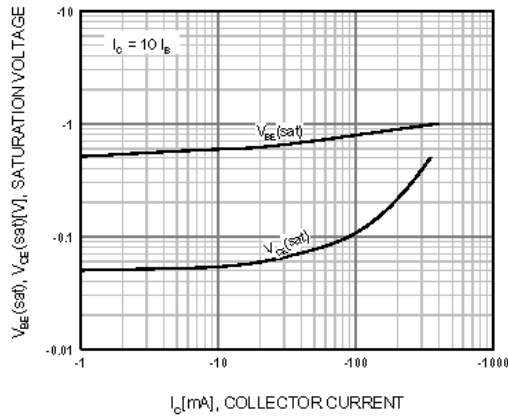


Figure 3. Base-Emitter Saturation Voltage  
Collector-Emitter Saturation Voltage

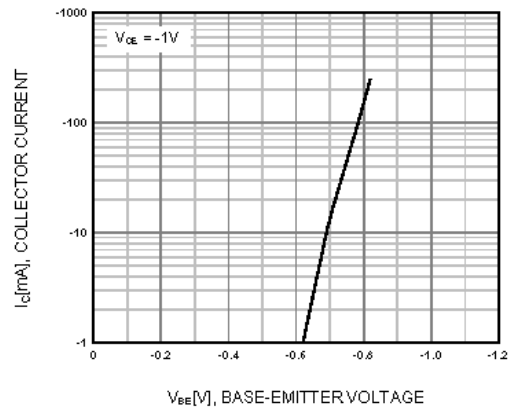


Figure 4. Base-Emitter On Voltage

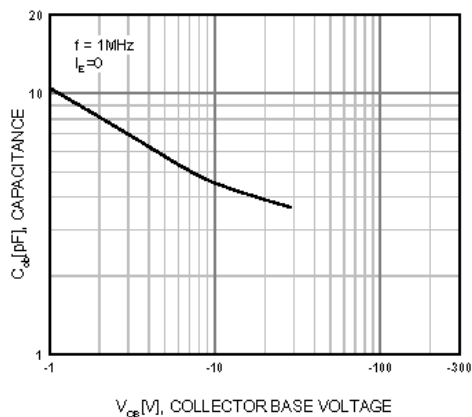
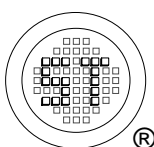


Figure 5. Collector Output Capacitance



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