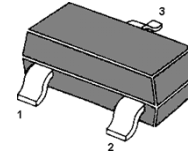


## MMBTSA1256 PNP Silicon Epitaxial Planar Transistor

for use in FM RF amplifier, mixer, oscillators, converters and IF amplifiers applications

The transistor is subdivided into three groups, R, Q and Y according to its DC current gain.



1.Base 2.Emitter 3.Collector  
SOT-23 Plastic Package

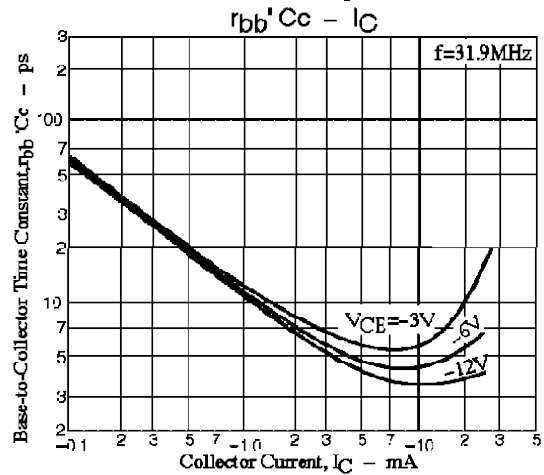
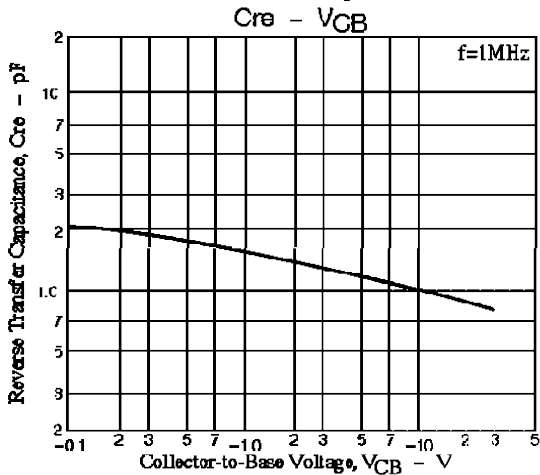
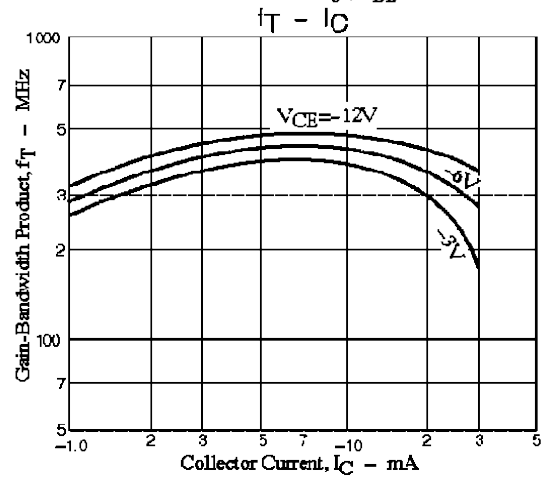
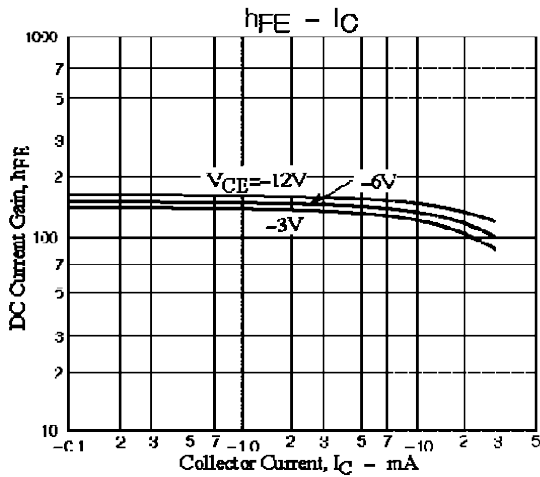
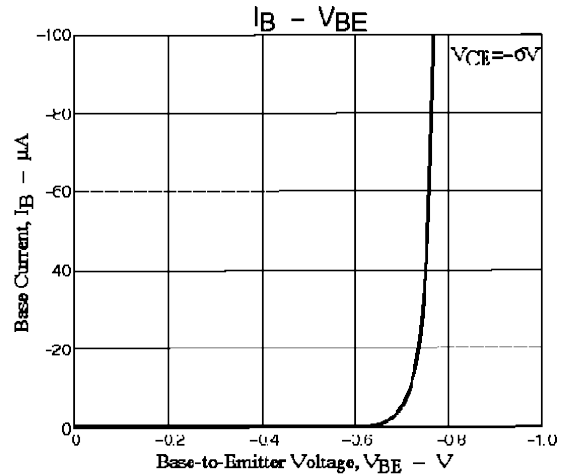
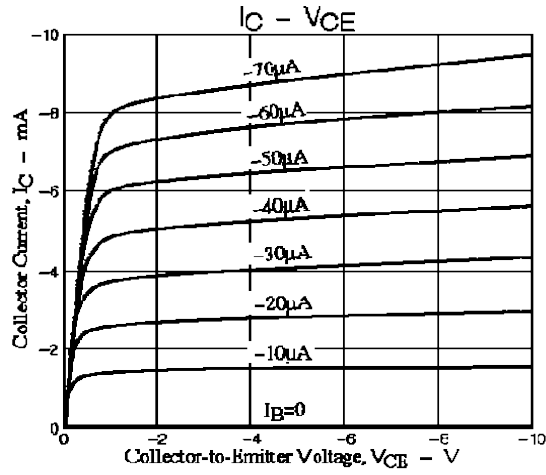
### Absolute Maximum Ratings ( $T_a = 25\text{ }^\circ\text{C}$ )

Parameter	Symbol	Value	Unit
Collector Base Voltage	$-V_{CBO}$	30	V
Collector Emitter Voltage	$-V_{CEO}$	20	V
Emitter Base Voltage	$-V_{EBO}$	5	V
Collector Current	$-I_C$	30	mA
Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	125	$^\circ\text{C}$
Storage Temperature Range	$T_s$	- 55 to + 125	$^\circ\text{C}$

### Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $-V_{CE} = 6\text{ V}$ , $-I_C = 1\text{ mA}$ Current Gain Group	R $h_{FE}$	60	-	120	-
	Q $h_{FE}$	90	-	180	-
	Y $h_{FE}$	135	-	270	-
Collector Cutoff Current at $-V_{CB} = 10\text{ V}$	$-I_{CBO}$	-	-	0.1	$\mu\text{A}$
Emitter Cutoff Current at $-V_{EB} = 4\text{ V}$	$-I_{EBO}$	-	-	0.1	$\mu\text{A}$
Transition Frequency at $-V_{CE} = 6\text{ V}$ , $-I_C = 1\text{ mA}$	$f_T$	150	230	-	MHz
Reverse Transfer Capacitance at $-V_{CB} = 6\text{ V}$ , $f = 1\text{ MHz}$	$C_{re}$	-	-	1.7	pF
Noise Figure at $-V_{CE} = 6\text{ V}$ , $-I_C = 1\text{ mA}$ , $f = 100\text{ MHz}$	NF	-	2.5	-	dB

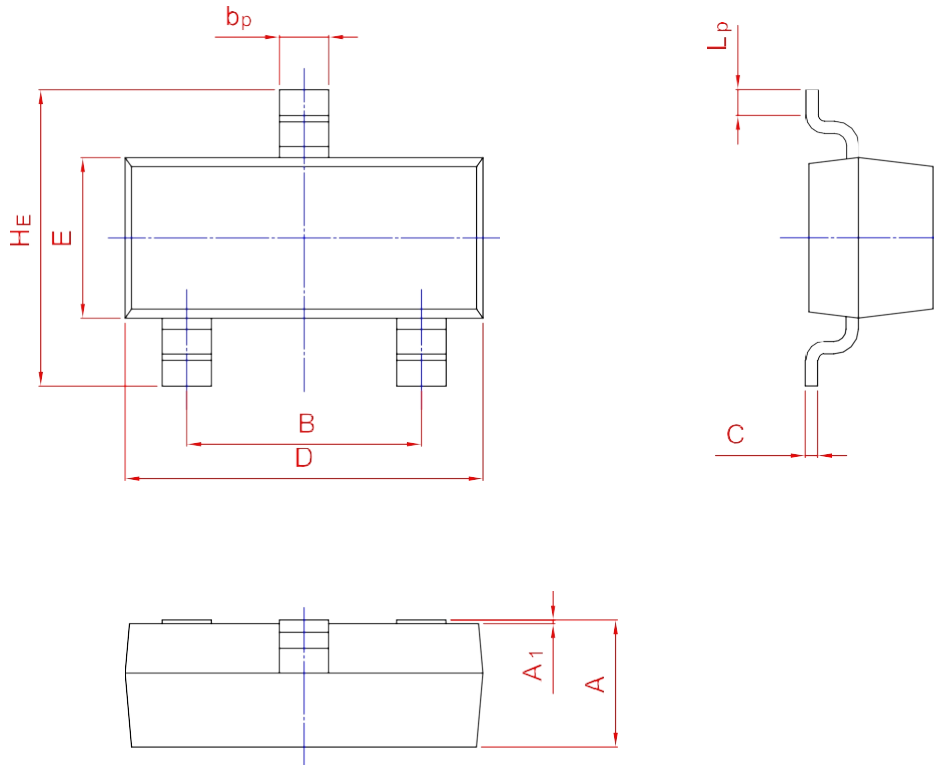
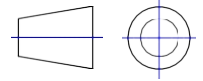
Typical Characteristics



PACKAGE OUTLINE

Plastic surface mounted package; 3 leads

SOT-23



UNIT	A	B	b <sub>p</sub>	C	D	E	H <sub>E</sub>	A <sub>1</sub>	L <sub>p</sub>
mm	1.40	2.04	0.50	0.19	3.10	1.65	3.00	0.100	0.50
	0.95	1.78	0.35	0.08	2.70	1.20	2.20	0.013	0.20