# MMBTSA1256

### **PNP Silicon Epitaxial Planar Transistor**

SOT-23

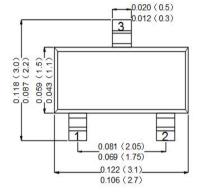
#### Features

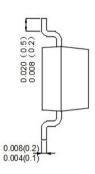
• For use in FM RF amplifier, mixer, oscillators,

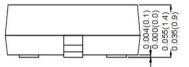
- converters and IF amplifiers applications.
- The transistor is subdivided into three groups,
- R, Q and Y according to its DC current gain.

#### **Mechanical Data**

- Case:Molded Plastic,SOT-23
- Epoxy:UL 94V-0 rate flame retardant
- Terminals:Plated Leads Solderable perMIL-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	Symbol Value	
Collector Base Voltage	-V <sub>CBO</sub>	30	V
Collector Emitter Voltage	-V <sub>CEO</sub>	20	V
Emitter Base Voltage	-V <sub>EBO</sub>	5	V
Collector Current	-I <sub>C</sub>	30	mA
Power Dissipation	P <sub>tot</sub>	200	mW
Junction Temperature	Tj	125	°C
Storage Temperature Range	Ts	- 55 to + 125	°C

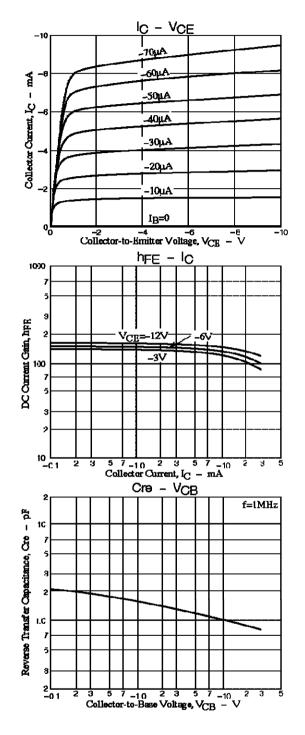
Electrical Characteristics (Rating at 25°C ambient temperature unless otherwise specified.)

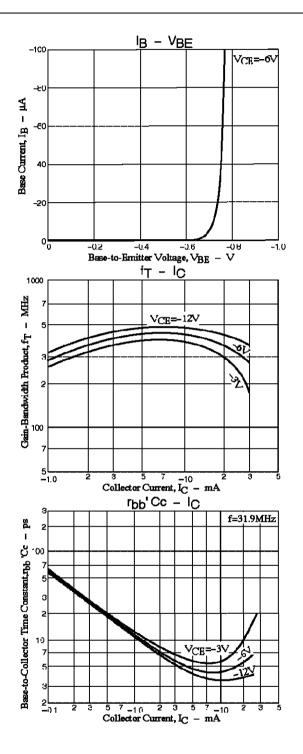
Parameter		Symbol	Min.	Тур.	Max.	Unit
DC Current Gain at $-V_{CE} = 6 V$ , $-I_C = 1 mA$ Current Gain Group	R Q Y	h <sub>FE</sub> h <sub>FE</sub> h <sub>FE</sub>	60 90 135	- -	120 180 270	- - -
Collector Cutoff Current at -V <sub>CB</sub> = 10 V		-I <sub>CBO</sub>	-	-	0.1	μA
Emitter Cutoff Current at $-V_{EB} = 4 V$		-I <sub>EBO</sub>	-	-	0.1	μA
Transition Frequency at $-V_{CE} = 6 \text{ V}, -I_C = 1 \text{ mA}$		f⊤	150	230	-	MHz
Reverse Transfer Capacitance at $-V_{CB} = 6 V$ , f = 1 MHz		C <sub>re</sub>	-	-	1.7	pF
Noise Figure at $-V_{CE} = 6 \text{ V}, -I_C = 1 \text{ mA}, \text{ f} = 100 \text{ MHz}$		NF	-	2.5	-	dB

# MMBTSA1256

### **PNP Silicon Epitaxial Planar Transistor**

### **Rating And Characteristic Curves**





### PNP Silicon Epitaxial Planar Transistor

## Important Notice and Disclaimer

- Reproducing and modifying information of the document is prohibited without from XINNUO.
- XINNUO reserves the right to make changes to this document and its products and specifications.
- XINNUO disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- XINNUO does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the here in document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications.XINNUO makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown her are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify XINNUO for any damages resulting from such improper use or sale.
- Since XINNUO uses lot number as the tracking base, please provide the lot number for tracking when complaining.