

# MMBTSC4226

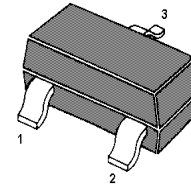
## NPN Silicon Epitaxial Planar Transistor

High Frequency Low Noise Amplifier.

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

### Description:

The MMBTSC4226 is a low supply voltage transistor designed for VHF, UHF low noise amplifier.



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

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

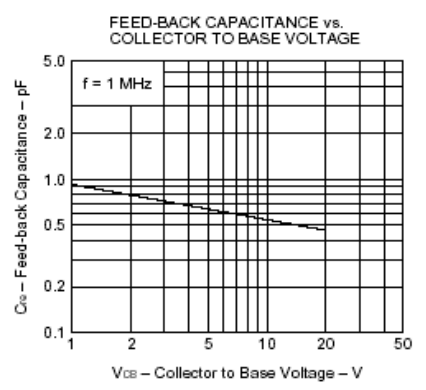
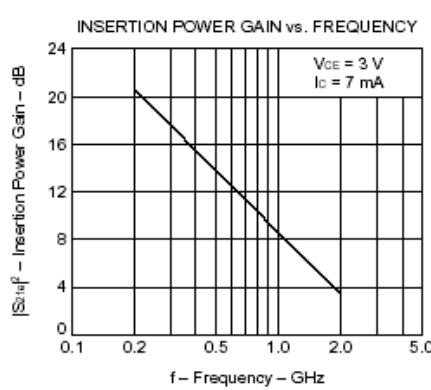
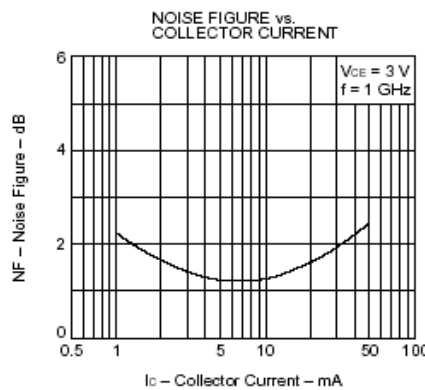
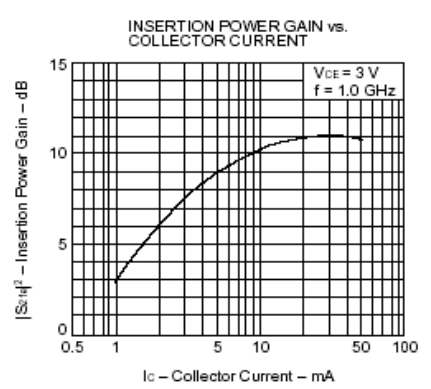
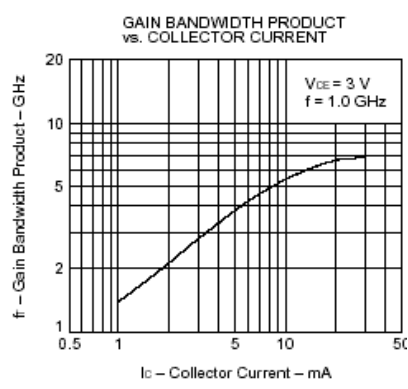
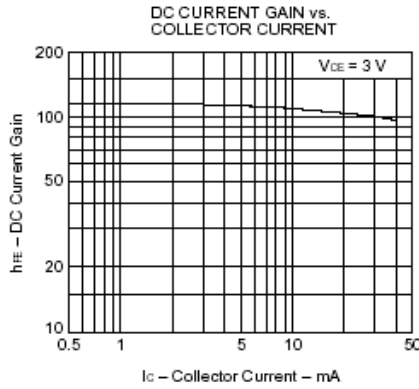
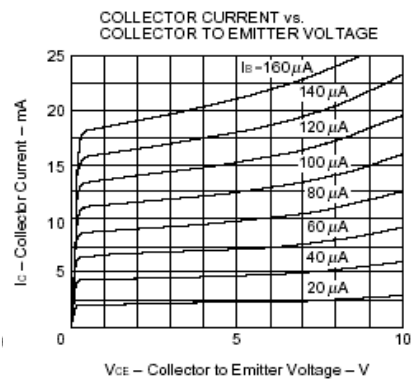
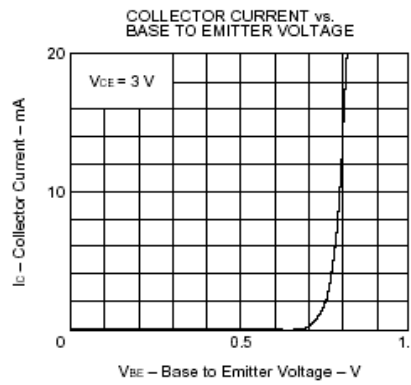
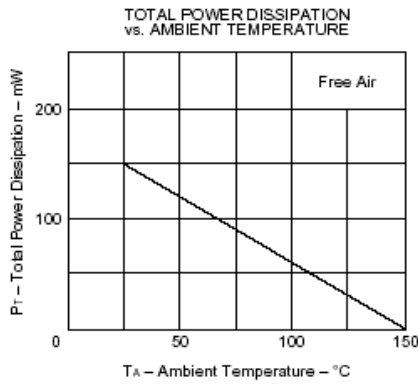
	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	20	V
Collector Emitter Voltage	$V_{CEO}$	12	V
Emitter Base Voltage	$V_{EBO}$	3	V
Collector Current	$I_C$	100	mA
Total Power Dissipation	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit	
DC Current Gain at $V_{CE} = 3\text{ V}$ , $I_C = 7\text{ mA}$	Current Gain Group Q	$h_{FE}$	40	-	80	-
	R	$h_{FE}$	70	-	140	-
	S	$h_{FE}$	125	-	250	-
Collector Cutoff Current at $V_{CB} = 10\text{ V}$	$I_{CBO}$	-	-	1	$\mu\text{A}$	
Emitter Cutoff Current at $V_{EB} = 1\text{ V}$	$I_{EBO}$	-	-	1	$\mu\text{A}$	
Gain Bandwidth Product at $V_{CE} = 3\text{ V}$ , $I_C = 7\text{ mA}$	$f_T$	3	4.5	-	GHz	
Feed back Capacitance <sup>1)</sup> at $V_{CE} = 3\text{ V}$ , $f = 1\text{ MHz}$	$C_{re}$	-	0.7	1.5	pF	

<sup>1)</sup> Measured with 3 terminal bridge, Emitter and case should be grounded.

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**TOP DYNAMIC**