



# FUKUCOM COMPANY LTD.

## 福 靈 有 限 公 司

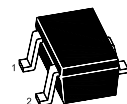
FLAT P, 3/F., EVEREST INDUSTRIAL CENTRE, 396 KWUN TONG ROAD,  
KWUN TONG, KOWLOON, HONG KONG.

TEL: 852-2790 0314 FAX: 852-2790 0206

### MMBTSC4226W

#### NPN Silicon Epitaxial Planar Transistor

For VHF, UHF low noise amplifier



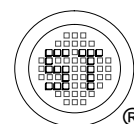
1.Base 2.Emitter 3.Collector  
SOT-323 Plastic Package

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

Parameter	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
Power Dissipation	$P_{tot}$	150	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	- 65 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	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 Base Cutoff Current at $V_{CB} = 10\text{ V}$	$I_{CBO}$	-	1	$\mu\text{A}$	
Emitter Base Cutoff Current at $V_{EB} = 1\text{ V}$	$I_{EBO}$	-	1	$\mu\text{A}$	
Collector Base Breakdown Voltage at $I_C = 10\text{ }\mu\text{A}$	$V_{(BR)CBO}$	20	-	V	
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	12	-	V	
Emitter Base Breakdown Voltage at $I_E = 10\text{ }\mu\text{A}$	$V_{(BR)EBO}$	3	-	V	
Collector Emitter Saturation Voltage at $I_C = 10\text{ mA}$ , $I_B = 5\text{ mA}$	$V_{CE(sat)}$	-	0.5	V	
Transition Frequency at $V_{CE} = 3\text{ V}$ , $I_C = 7\text{ mA}$	$f_T$	3	-	GHz	
Feed Back Capacitance at $V_{CB} = 3\text{ V}$ , $f = 1\text{ MHz}$	$C_{re}$	-	1.5	pF	
Noise Figure at $V_{CE} = 3\text{ V}$ , $I_C = 7\text{ mA}$ , $f = 1\text{ GHz}$	NF	-	2.5	dB	



Dated : 13/06/2009



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