



**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.

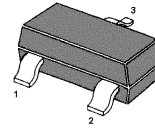
TEL: 852-2790 0314 FAX: 852-2790 0206

## MMBTSC3356

### NPN Silicon Epitaxial Planar Transistor

for microwave low noise amplifier at VHF, UHF and CATV band.

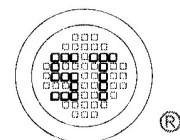
The transistor is subdivided into three groups, Q, R and S, according to its DC current gain.



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

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

	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	$P_{tot}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_s$	-65 to +150	$^\circ\text{C}$



**SEMTECH**

Dated : 20/10/2005

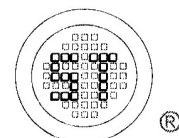
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**MMBTSC3356****Characteristics at T<sub>amb</sub>=25 °C**

	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at V <sub>CE</sub> =10V, I <sub>C</sub> =20mA					
Current Gain Group Q	h <sub>FE</sub>	50	-	100	-
R	h <sub>FE</sub>	80	-	160	-
S	h <sub>FE</sub>	125	-	250	-
Collector Cutoff Current at V <sub>CB</sub> =10V	I <sub>CBO</sub>	-	-	1	μA
Emitter Cutoff Current at V <sub>EB</sub> =1V	I <sub>EBO</sub>	-	-	1	μA
Gain Bandwidth Product at V <sub>CE</sub> =10V, I <sub>C</sub> =20mA	f <sub>T</sub>	-	7	-	GHz
Feed-Back Capacitance at V <sub>CB</sub> =10V, f=1MHz	C <sub>re</sub> <sup>1)</sup>	-	0.55	1	pF
Insertion Power Gain at V <sub>CE</sub> =10V, I <sub>C</sub> =20mA, f=1.0GHz	S <sub>21e</sub>   <sup>2</sup>	-	11.5	-	dB
Noise Figure at V <sub>CE</sub> =10V, I <sub>C</sub> =7mA, f=1.0GHz	NF	-	1.1	2	dB

<sup>1)</sup> The emitter terminal and the case shall be connected to the guard terminal of the three-terminal capacitance bridge.

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