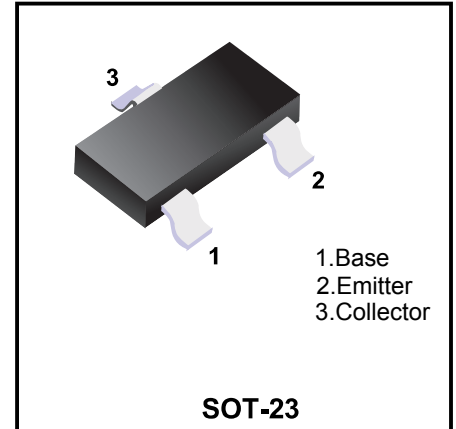


NPN Silicon Epitaxial Planar Transistor

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.



Absolute Maximum Ratings (Ta=25 °C)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CB0}	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	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Characteristics (Ta = 25°C)

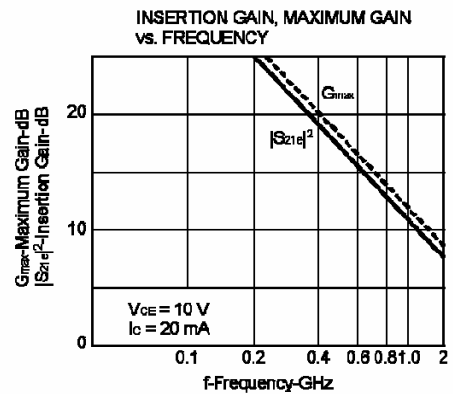
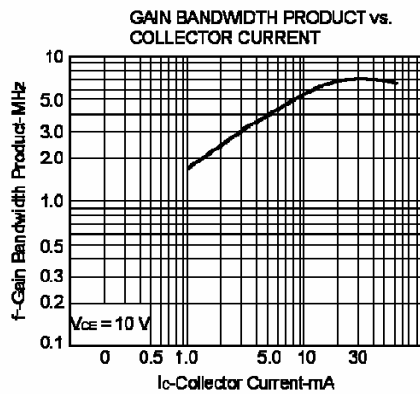
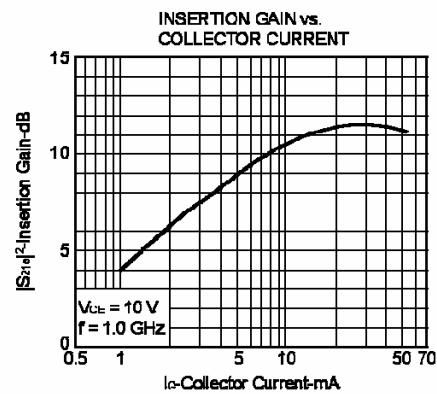
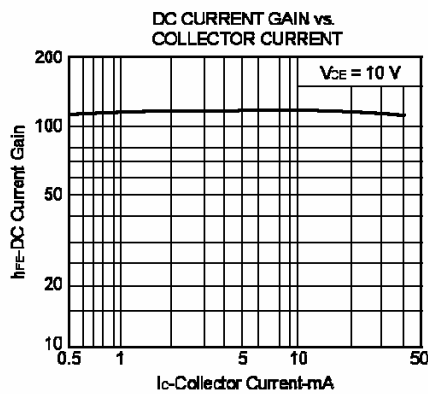
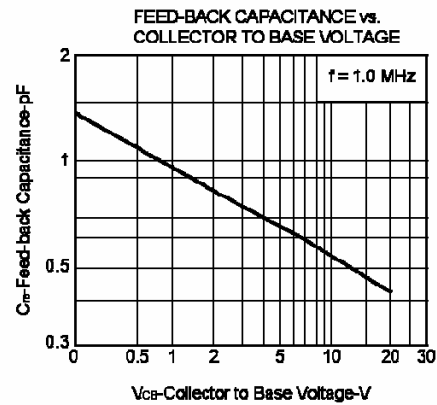
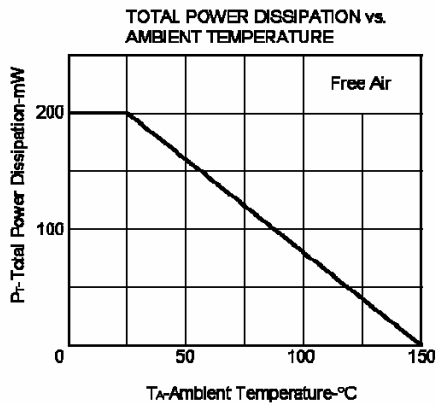
Parameter	Symbol	Min	Typ	Max	Unit
DC Current Gain at $V_{CE} = 10\text{ V}$, $I_C = 20\text{ mA}$ Current Gain Group	Q	h_{FE}	50	100	-
	R	h_{FE}	80	160	-
	S	h_{FE}	125	250	-
Collector Cutoff Current at $V_{CB} = 10\text{ V}$	I_{CBO}	-	-	1	μA
Emitter Cutoff Current at $V_{EB} = 1\text{ V}$	I_{EBO}	-	-	1	μA
Gain Bandwidth Product at $V_{CE} = 10\text{ V}$, $I_C = 20\text{ mA}$	f_T	-	7	-	GHz
Feed-Back Capacitance ¹⁾ at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_{re}	-	0.55	1.0	pF
Noise Figure at $V_{CE} = 10\text{ V}$, $I_C = 7\text{ mA}$, $f = 1\text{ GHz}$	NF	-	1.1	2	dB

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

h_{FE} Classification

h_{FE}	Q	R	S
Classification	MMBTSC3356Q-7G	MMBTSC3356R-7G	MMBTSC335S-7G
Range	50-100	80-160	125-250
Marling	R23	R24	R25

Typical Characteristics



Ordering information

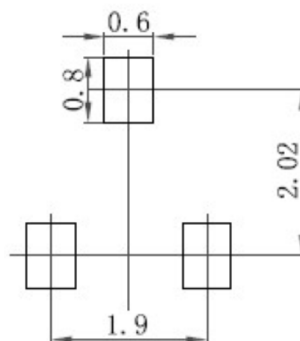
Package	Packing Description	Base Quantity	Packing Quantity
SOT-23	Tape/Reel,7"reel	3000pcs/Reel	24000PCS/Box 120000PCS/Carton

Package Dimensions

SOT-23

Dim.	Millimeter (mm)		mil	
	Min.	Max.	Min.	Max.
A	0.9	1.15	35	45
A1	0.1		3.9	
bp	0.38	0.48	15	19
C	0.09	0.15	3.54	5.9
D	2.8	3.0	110	118
E	1.2	1.4	47	55
e	1.9		75	
e1	0.95		37	
HE	2.1	2.55	83	100
Lp	0.15	0.45	5.9	18
Q	0.45	0.55	18	22
v	0.2		7.9	
W	0.1		4	

The recommended mounting pad size



Disclaimer

The information presented in this document is for reference only. GuangDong Youfeng Microelectronics Co.,Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise. The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of with would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices),YFW or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale. This publication supersedes & replaces all information previously supplied. For additional information, please visit our website <https://www.yfwdiode.com>, or consult YFW sales office for further assistance.