

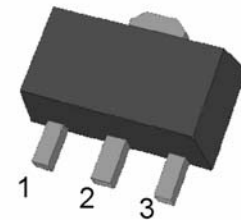
## RF Transistors 高頻三極管

FHT3357

## DESCRIPTION &amp; FEATURES 概述及特點

High Frequency Low Noise Amplifier  
高頻低雜訊放大

SOT-89



## PIN ASSIGNMENT 引腳說明

PIN NAME 管腳符號	PIN NUMBER 引腳序號	FUNCTION 功能
	SOT-89	
B	1	BASE
C	2	COLLECTOR
E	3	EMITTER

MAXIMUM RATINGS(T<sub>a</sub>=25°C) 最大額定值

CHARACTERISTIC 特性參數	Symbol 符號	Rating 額定值	Unit 單位
Collector-Base Voltage 集電極-基極電壓	V <sub>CBO</sub>	20	Vdc
Collector-Emitter Voltage 集電極-發射極電壓	V <sub>CEO</sub>	12	Vdc
Emitter-Base Voltage 發射極-基極電壓	V <sub>EBO</sub>	3.0	Vdc
Collector Current—Continuous 集電極電流-連續	I <sub>C</sub>	100	mAdc

## THERMAL CHARACTERISTICS 熱特性

CHARACTERISTIC 特性參數	Symbol 符號	Max 最大值	Unit 單位
Collector Power Dissipation 集電極耗散功率	P <sub>c</sub>	1.2	W
Junction and Storage Temperature 結溫和儲存溫度	T <sub>j</sub> , T <sub>stg</sub>	150, -55 ~ 150	°C

## DEVICE MARKING 打標

h<sub>FE</sub> (1) FHT3356R23=R23 (50~100), FHT3356R24=R24 (80~160),  
FHT3356R25=R25 (125~250)

## ELECTRICAL CHARACTERISTICS 電特性

(T<sub>A</sub>=25°C unless otherwise noted 如無特殊說明, 溫度為 25°C)

Characteristic 特性參數	Symbol 符號	Test Condition 測試條件	Min 最小值	Type 典型值	Max 最大值	Unit 單位
Collector Cutoff Current 集電極截止電流	I <sub>CBO</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0	—	—	1.0	μA
Emitter Cutoff Current 發射極截止電流	I <sub>EBO</sub>	V <sub>EB</sub> =1V, I <sub>C</sub> =0	—	—	1.0	μA
Collector-Emitter Breakdown Voltage 集電極-發射極擊穿電壓	V <sub>(BR)CEO</sub>	I <sub>C</sub> =1.0mA	12	—	—	V
Collector-Base Breakdown Voltage 集電極-基極擊穿電壓	V <sub>(BR)CBO</sub>	I <sub>C</sub> =10μA	20	—	—	V
Emitter-Base Breakdown Voltage 發射極-基極擊穿電壓	V <sub>(BR)EBO</sub>	I <sub>E</sub> =10μA	3.0	—	—	V
DC Current Gain 直流電流增益	h <sub>FE</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =20mA	50	120	300	—
Transition Frequency 特徵頻率	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =20mA	—	6.5	—	GHz
Feed-Back Capacitance 回饋電容	C <sub>re</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	—	0.65	1.0	pF
Insertion Power Gain 插入功率增益	S <sub>21e</sub>   <sup>2</sup>	V <sub>CE</sub> =10V, I <sub>C</sub> =20mA, f=1.0GHz	—	9	—	dB
Nose Factor 雜訊係數	NF	V <sub>CE</sub> =10V, I <sub>C</sub> =7mA, f=1.0GHz	—	1.1	—	dB
Nose Factor 雜訊係數	NF	V <sub>CE</sub> =10V, I <sub>C</sub> =40mA, f=1.0GHz	—	1.8	3.0	dB