

### RF Transistors 高頻三極管

### FHT951

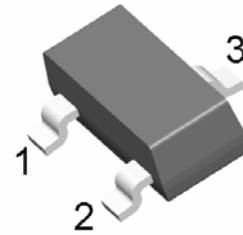
#### DESCRIPTION & FEATURES 概述及特點

Small size ;Low noise;Low distortion;High gain.  
 尺寸小；噪聲低；失真小；增益大。

#### PIN ASSIGNMENT 引腳說明

PIN NAME 管腳符號	PIN NUMBER 引腳序號	FUNCTION 功能
	SOT-23	
B	1	BASE
E	2	EMITTER
C	3	COLLECTOR

SOT-23



#### 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-Emitter Voltage 集電極-發射極電壓	V <sub>CEO</sub>	10	Vdc
Collector-Base Voltage 集電極-基極電壓	V <sub>CBO</sub>	20	Vdc
Emitter-Base Voltage 發射極-基極電壓	V <sub>EBO</sub>	1.5	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>	365	mW
Junction and Storage Temperature 結溫和儲存溫度	T <sub>j</sub> , T <sub>stg</sub>	150, -65 ~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	—	—	100	nA
Emitter Cutoff Current 發射極截止電流	I <sub>EBO</sub>	V <sub>EB</sub> =1V, I <sub>C</sub> =0	—	—	100	nA
Collector-Emitter Breakdown Voltage 集電極-發射極擊穿電壓	V <sub>(BR)CEO</sub>	I <sub>C</sub> =100uA, I <sub>B</sub> =0	10	—	—	V
Collector-Base Breakdown Voltage 集電極-基極擊穿電壓	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100uA, I <sub>E</sub> =0	20	—	—	V
Emitter-Base Breakdown Voltage 發射極-基極擊穿電壓	V <sub>(BR)EBO</sub>	I <sub>E</sub> =10uA, I <sub>C</sub> =0	1.5	—	—	V
DC Current Gain 直流電流增益	h <sub>FE</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =5mA	50	100	200	—
		V <sub>CE</sub> =6V, I <sub>C</sub> =15mA	—	100	—	—
Transition Frequency 特徵頻率	f <sub>T</sub>	V <sub>CE</sub> =6V, I <sub>C</sub> =30mA, f <sub>m</sub> =1GHz	—	8	—	GHz
Feed-Back Capacitance 回饋電容	C <sub>re</sub>	V <sub>CB</sub> =6V, I <sub>C</sub> =0, f=1MHz	—	0.4	—	pF
GUM maximum unilateral power gain GUM 最大單邊功率增益	GUM	I <sub>C</sub> = 30 mA; V <sub>CE</sub> = 6 V; T <sub>amb</sub> = 25 °C; f = 1 GHz	—	14	—	dB
		I <sub>C</sub> = 30 mA; V <sub>CE</sub> = 6 V; T <sub>amb</sub> = 25 °C; f = 2 GHz	—	8	—	dB
Noise Factor 雜訊係數	NF	V <sub>CE</sub> =6V, I <sub>C</sub> =5mA, f=1.0GHz	—	1.3	—	dB
		V <sub>CE</sub> =6V, I <sub>C</sub> =5mA, f=2.0GHz	—	2	—	dB

1. GUM is the maximum unilateral power gain, assuming S<sub>12</sub> is zero. GUM= 10log