

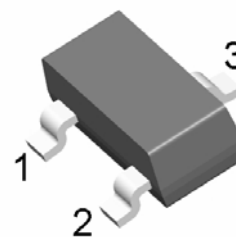
## Low Frequency Power Amplifier Transistors 低頻功率放大三極管

## FHT8050

## DESCRIPTION &amp; FEATURES 概述及特點

Suitable for Driver Stage of Small Motor 小馬達驅動  
 Complementary to FHT8550 與 FHT8550 互補

SOT-23



## 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

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>	25	Vdc
Collector-Base Voltage 集電極-基極電壓	V <sub>CBO</sub>	40	Vdc
Emitter-Base Voltage 發射極-基極電壓	V <sub>EBO</sub>	5.0	Vdc
Collector Current—Continuous 集電極電流-連續	I <sub>C</sub>	800	mAdc
Base Current 基極電流	I <sub>B</sub>	160	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>	300	mW
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) FHT8050O=7O(85~200), FHT8050Y=7Y(160~300), FHT8050G=7G (280~400)

## 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> =30V, I <sub>E</sub> =0	—	—	0.1	μA
Emitter Cutoff Current 發射極截止電流	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0	—	—	0.1	μA
Collector-Emitter Breakdown Voltage 集電極-發射極擊穿電壓	V <sub>(BR)CEO</sub>	I <sub>C</sub> =10mA	25	—	—	V
Collector-Base Breakdown Voltage 集電極-基極擊穿電壓	V <sub>(BR)CBO</sub>	I <sub>C</sub> =100μA	40	—	—	V
Emitter-Base Breakdown Voltage 發射極-基極擊穿電壓	V <sub>(BR)EBO</sub>	I <sub>E</sub> =100μA	5	—	—	V
DC Current Gain 直流電流增益	h <sub>FE</sub> (1)	V <sub>CE</sub> =1V, I <sub>C</sub> =100mA	85	—	400	—
	h <sub>FE</sub> (2)	V <sub>CE</sub> =1V, I <sub>C</sub> =800mA	40	—	—	
Collector-Emitter Saturation Voltage 集電極-發射極飽和壓降	V <sub>CE(sat)</sub>	I <sub>C</sub> =500mA, I <sub>B</sub> =50mA	—	—	0.6	V
Base Emitter Voltage 基極發射極電壓	V <sub>BE</sub>	V <sub>CE</sub> =1V, I <sub>C</sub> =10mA	100	0.8	1.2	V
Transition Frequency 特徵頻率	f <sub>T</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =10mA	—	120	—	MHz
Collector Output Capacitance 輸出電容	V <sub>ob</sub>	V <sub>CB</sub> =10V, I <sub>E</sub> =0, f=1MHz	—	13	30	pF