

## 帶阻三極管 Resistive Transistors

### Resistive Transistors 帶阻三極管

### NPN Silicon (FHRC110~FHRC114)

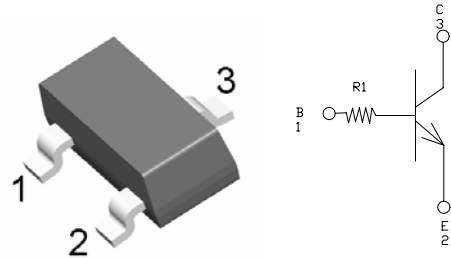
#### DESCRIPTION & FEATURES 概述及特點

With Built-in Bias Resistors 內部基極帶阻  
 Simplify Circuit Design 簡單的回路設計  
 Reduce a Quantity of Parts and Manufacturing Process  
 簡化了外部元件及貼片過程

#### 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-Base Voltage 集電極-基極電壓	V <sub>CBO</sub>	50	Vdc
Collector-Emitter Voltage 集電極-發射極電壓	V <sub>CEO</sub>	50	Vdc
Emitter-Base Voltage 發射極-基極電壓	V <sub>EBO</sub>	5.0	Vdc
Collector Current –Continuous 集電極連續電流	I <sub>C</sub>	100	mAdc
Collector Power Dissipation 集電極耗散功率	P <sub>C</sub>	200	mW
Junction Temperature 結溫	T <sub>J</sub>	150	°C
Storage Temperature Range 儲存溫度	T <sub>STG</sub>	-55~150	°C

#### DEVICE MARKING 打標

TYPE 型號	FHRC110	FHRC111	FHRC112	FHRC113	FHRC114
MARK 打標	NK	NM	NN	NO	NP

#### 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> =50V, I <sub>E</sub> =0	-	-	100	nA
Collector Cutoff Current 發射極截止電流	I <sub>EBO</sub>	V <sub>EB</sub> =5V, I <sub>C</sub> =0	-	-	100	nA
DC Current Gain 直流電流增益	h <sub>FE</sub>	V <sub>CE</sub> =5V, I <sub>C</sub> =1mA	120	-	-	-
Collector-Emitter Saturation Voltage 集電極-發射極飽和壓降	V <sub>CE(sat)</sub>	I <sub>C</sub> =10 mA I <sub>B</sub> =0.5 mA	-	0.1	0.3	V
Transition Frequency 特徵頻率	f <sub>T</sub>	V <sub>CE</sub> =10V, I <sub>C</sub> =5mA	-	250	-	MHz
Input Resistance 輸入電阻	FHRC110	R1	3.29	4.7	6.11	kΩ
	FHRC111		7	10	13	
	FHRC112		70	100	130	
	FHRC113		15.4	22	28.6	
	FHRC114		32.9	47	61.1	