

广东协铨微电子科技有限公司

Low Frequency Power Amplifier Transistors 低频功率放大三极管

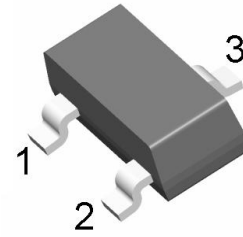
XCTL8050

DESCRIPTION & FEATURES 概述及特点

Suitable for Driver Stage of Small Motor 小马达驱动

Complementary to XCTL8550 与 XCTL8550 互补

SOT-23



PIN ASSIGNMENT 引脚说明

PIN NAME 管脚符号	PIN NUMBER 引脚序号	FUNCTION 功能
	SOT-23	
B	1	BASE
E	2	EMITTER
C	3	COLLECTOR

MAXIMUM RATINGS(T_a=25℃) 最大额定值

CHARACTERISTIC 特性参数	Symbol 符号	Rating 额定值	Unit 单位
Collector-Emitter Voltage 集电极-发射极电压	V _{CEO}	25	Vdc
Collector-Base Voltage 集电极-基极电压	V _{CBO}	40	Vdc
Emitter-Base Voltage 发射极-基极电压	V _{EBO}	5.0	Vdc
Collector Current—Continuous 集电极电流-连续	I _C	1500	mAdc
Base Current 基极电流	I _B	160	mAdc

THERMAL CHARACTERISTICS 热特性

CHARACTERISTIC 特性参数	Symbol 符号	Max 最大值	Unit 单位
Collector Power Dissipation 集电极耗散功率	P _c	300	mW
Junction and Storage Temperature 结温和储存温度	T _j , T _{stg}	150, -55 ~150	℃

DEVICE MARKING 打标

XCTL8050=Y1

ELECTRICAL CHARACTERISTICS 电特性

(T_A=25℃ unless otherwise noted 如无特殊说明, 温度为 25℃)

Characteristic 特性参数	Symbol 符号	Test Condition 测试条件	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector Cutoff Current 集电极截止电流	I _{CBO}	V _{CB} =30V, I _E =0	—	—	0.1	μA
Emitter Cutoff Current 发射极截止电流	I _{EBO}	V _{EB} =5V, I _C =0	—	—	0.1	μA
Collector-Emitter Breakdown Voltage 集电极-发射极击穿电压	V _{(BR)CEO}	I _C =10mA	25	—	—	V
Collector-Base Breakdown Voltage 集电极-基极击穿电压	V _{(BR)CBO}	I _C =100μA	40	—	—	V
Emitter-Base Breakdown Voltage 发射极-基极击穿电压	V _{(BR)EBO}	I _E =100μA	5	—	—	V
DC Current Gain 直流电流增益	h _{FE} (1)	V _{CE} =1V, I _C =100mA	85	—	400	—
	h _{FE} (2)	V _{CE} =1V, I _C =1.5A	40	—	—	
Collector-Emitter Saturation Voltage 集电极-发射极饱和压降	V _{CE(sat)}	I _C =1.2A, I _B =120mA	—	—	0.6	V
Base Emitter Voltage 基极发射极电压	V _{BE}	V _{CE} =1V, I _C =10mA	100	0.8	1.2	V
Transition Frequency 特征频率	f _T	V _{CE} =5V, I _C =10mA	—	120	—	MHz
Collector Output Capacitance 输出电容	V _{ob}	V _{CB} =10V, I _E =0, f=1MHz	—	13	30	pF

CLASSIFICATION OF hFE(1)

RANK	L	H	J
RANGE	120-200	200-350	300-400