

广东协铨微电子科技有限公司

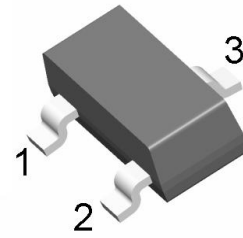
General Purpose Transistors 通用三极管

XCT9018

DESCRIPTION & FEATURES 概述及特点

High Frequency Low Noise Amplifier
高频低噪声放大

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}	30	Vdc
Collector-Base Voltage 集电极-基极电压	V _{CBO}	19	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	50	mAdc
Base Current 基极电流	I _B	50	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

XCT9018=J8

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} =20V, I _E =0	—	—	0.5	μA
Emitter Cutoff Current 发射极截止电流	I _{EBO}	V _{EB} =3V, I _C =0	—	—	0.5	μA
Collector-Base Breakdown Voltage 集电极-基极击穿电压	V _{(BR)CBO}	I _C =100μA	30	—	—	V
Collector-Emitter Breakdown Voltage 集电极-发射极击穿电压	V _{(BR)CEO}	I _C =1.0mA	19	—	—	V
Emitter-Base Breakdown Voltage 发射极-基极击穿电压	V _{(BR)EBO}	I _E =100μA	4	—	—	V
DC Current Gain 直流电流增益	h _{FE}	V _{CE} =5V, I _C =1mA	40	—	300	—
Collector-Emitter Saturation Voltage 集电极-发射极饱和压降	V _{CE(sat)}	I _C =10mA, I _B =1mA	—	—	0.6	V
Base-Emitter Voltage 基极-发射极电压	V _{BE}	I _B =10mA	—	—	1.0	V
Transition Frequency 特征频率	f _T	V _{CE} =5V, I _C =10mA	600	1100	—	MHz
Collector Output Capacitance 输出电容	C _{ob}	V _{CB} =10V, I _E =0, f=1MHz	—	1.2	1.5	pF