

描述 / Descriptions

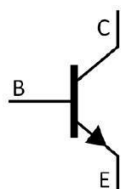
TO-92 塑封封装 NPN 半导体三极管。Silicon NPN transistor in a TO-92 Plastic Package.

特征 / Features 用途 / Applications

低电流, 低电压。用于一般放大。

Low current, Low voltage.
General purpose amplifier.

内部等效电路 / Equivalent Circuit



引脚排列 / Pinning



PIN1: Collector PIN 2: Base PIN 3: Emitter

放大及印章代码 / hFE Classifications & Marking

*HFE(1)分档及打印

分 档	1					印记见下 具体内容以打印为准
HFE(1)	100~300					
打印 (简例)						
其 它 说 明	封装外形: TO-92 管脚排列: E、B、C ***: 为生产代号, 随批次变化					

极限参数 / Absolute Maximum Ratings(Ta=25°C)

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V _{CBO}	60	V
Collector to Emitter Voltage	V _{CEO}	40	V
Emitter to Base Voltage	V _{EBO}	6.0	V
Collector Current - Continuous	I _C	200	mA
Collector Power Dissipation	P _C	625	mW
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55~150	°C

电性能参数 / Electrical Characteristics(Ta=25°C)

参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Collector to Base Breakdown Voltage	V _{CBO}	I _C =10μA I _E =0	60			V
Collector to Emitter Breakdown Voltage	V _{CEO}	I _C =1.0mA I _B =0	40			V
Emitter to Base Breakdown Voltage	V _{EBO}	I _E =10μA I _C =0	6.0			V
Collector Cut-Off Current	I _{CBO}	V _{CB} =50V I _E =0			0.05	μA
Emitter Cut-Off Current	I _{EBO}	V _{EB} =5.0V I _C =0			0.05	μA
DC Current Gain	h _{FE(1)}	V _{CE} =1.0V I _C =10mA	100		300	
	h _{FE(2)}	V _{CE} =1.0V I _C =100mA	30			
Collector to Emitter Saturation Voltage	V _{CE(sat)}	I _C =50mA I _B =5.0mA			0.3	V
Base to Emitter Saturation Voltage	V _{BE(sat)}	I _C =50mA I _B =5.0mA			0.95	V
Current Gain Bandwidth Product	f _T	I _C =10mA V _{CE} =20V f=100MHz	300			MHz
Output Capacitance	C _{ob}	V _{CB} =5.0V I _E =0 f=1.0MHz			4.0	pF
Turn On Time	T _{on}	V _{CC} =3.0V V _{BE} =0.5V I _C =10mA I _{B1} =1.0mA			0.07	μs
Turn Off Time	T _{off}	V _{CC} =3.0V I _C =10mA I _{B1} =-I _{B2} =1.0mA			0.25	μs

电参数曲线图 / Electrical Characteristic Curve

