

**描述 / Descriptions**

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

**特征 / Features**

低电流, 低电压。  
 Low current, Low voltage.

**用途 / Applications**

用于一般放大。  
 General purpose amplifier.

**引脚排列 / Pinning**


PIN1 : Collector

PIN 2 : Base

PIN 3 : Emitter

**内部等效电路 / Equivalent Circuit**

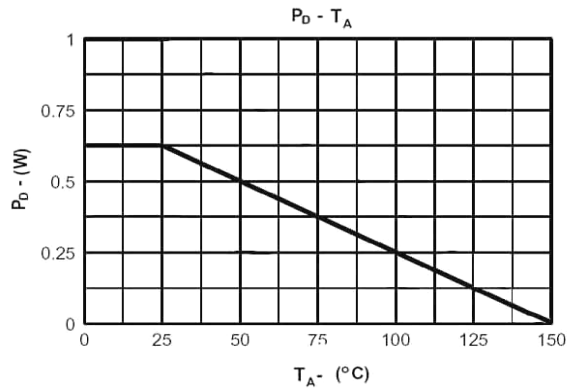
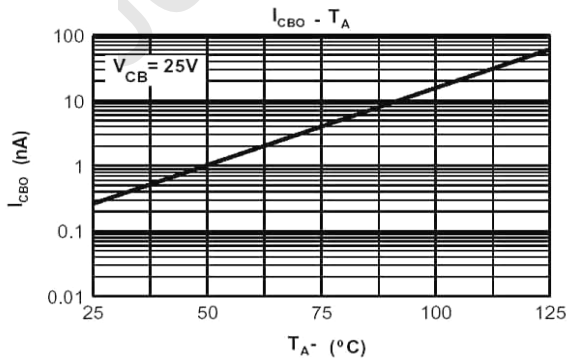
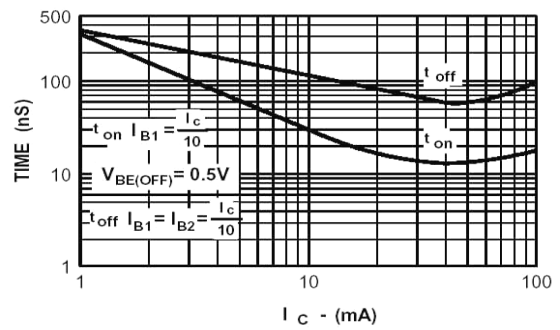
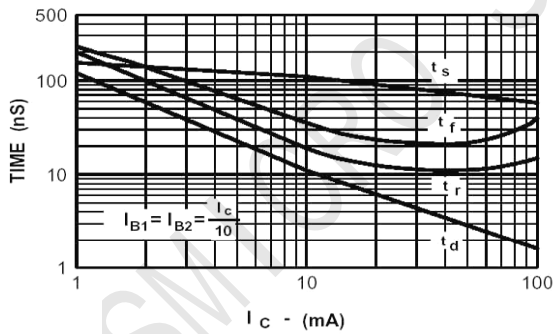
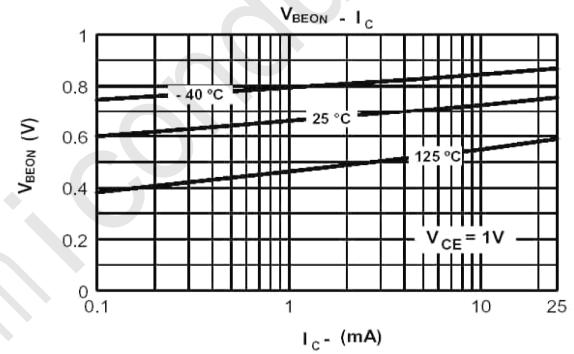
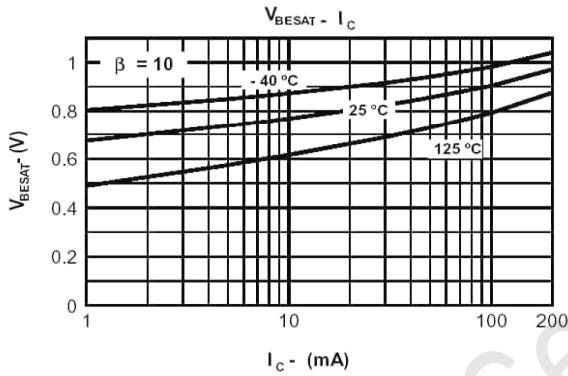
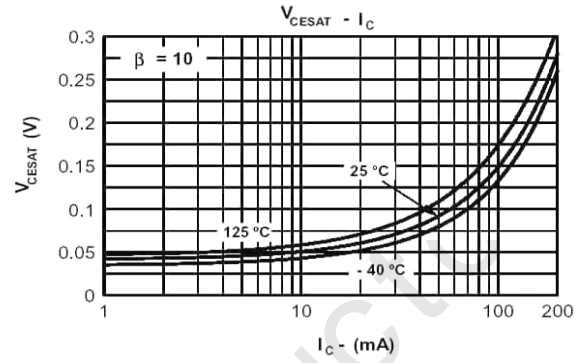
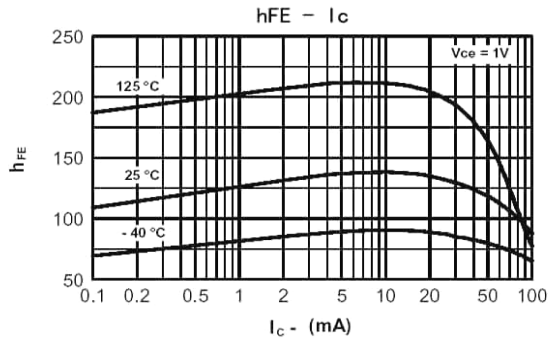
**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	$V_{CBO}$	-40	V
Collector to Emitter Voltage	$V_{CEO}$	-40	V
Emitter to Base Voltage	$V_{EBO}$	-5.0	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

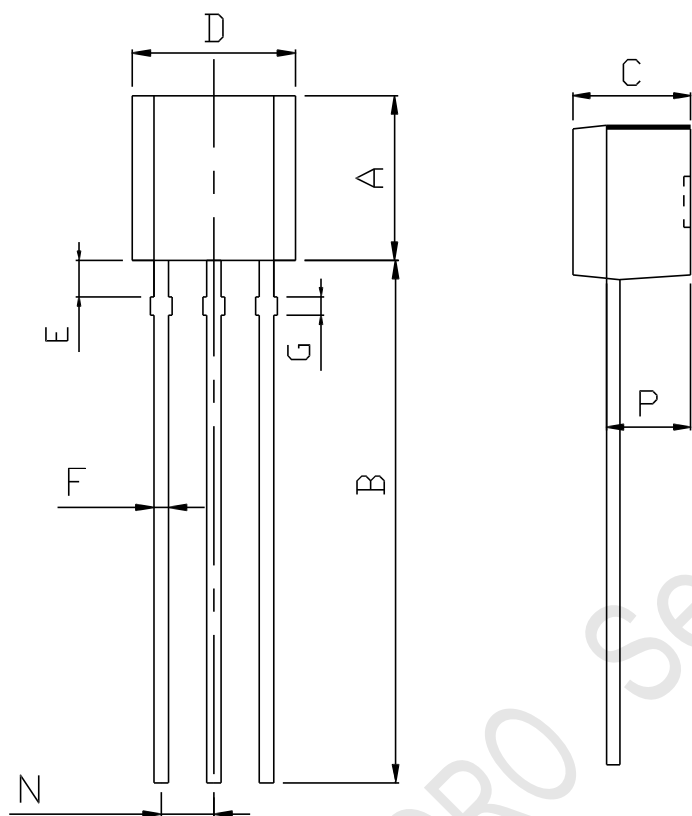
**电性能参数 / Electrical Characteristics(Ta=25°C)**

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	$V_{CBO}$	$I_C=-10\mu A$ $I_E=0$	-40			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=-1.0mA$ $I_B=0$	-40			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=-10\mu A$ $I_C=0$	-5.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=-40V$ $I_E=0$			-0.1	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=-5.0V$ $I_C=0$			-0.1	$\mu A$
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	$V_{CE(sat)}$	$I_C=-50mA$ $I_B=-5.0mA$			-0.4	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=-50mA$ $I_B=-5.0mA$			-0.95	V
Current Gain Bandwidth Product	$f_T$	$I_C=-10mA$ $V_{CE}=-20V$ $f=100MHz$	250			MHz
Output Capacitance	$C_{ob}$	$V_{CB}=-5.0V$ $I_E=0$ $f=100KHz$			4.5	pF
Turn On Time	$T_{on}$	$V_{CC}=-3.0V$ $I_C=-10mA$ $V_{BE}=-0.5V$ $I_{B1}=-1.0mA$			0.07	$\mu s$
Turn Off Time	$T_{off}$	$V_{CC}=-3.0V$ $I_C=-10mA$ $I_{B1}=-I_{B2}=-1.0mA$			0.3	$\mu s$

电参数曲线图 / Electrical Characteristic Curve



## 外形尺寸图 / Package Dimensions



DIM	MILLIMETERS
A	4.55±0.20
B	14.50±0.30
C	3.54±0.20
D	4.56±0.20
E	1.30±0.20
F	0.46±0.20
G	0.50±0.10
H	0.32±0.10
N	1.30±0.20
P	2.52±0.20

(Units: mm)

