

**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**

低电流, 低电压。  
Low current, Low voltage.

**用途 / Applications**

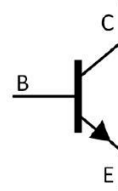
用于一般放大。  
General purpose amplifier.

**引脚排列 / Pinning**



PIN1 : Collector  
PIN 2 : Base  
PIN 3 : Emitter

**内部等效电路 / Equivalent Circuit**



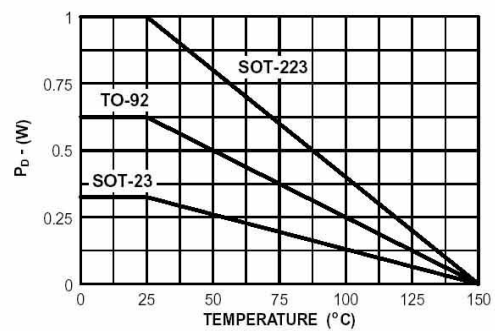
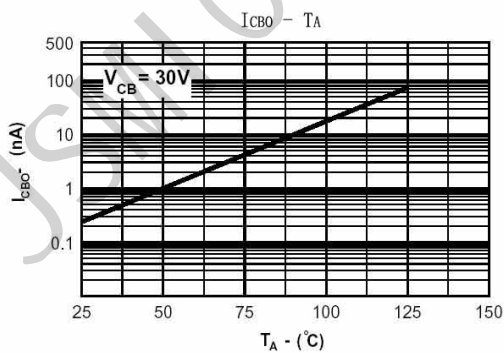
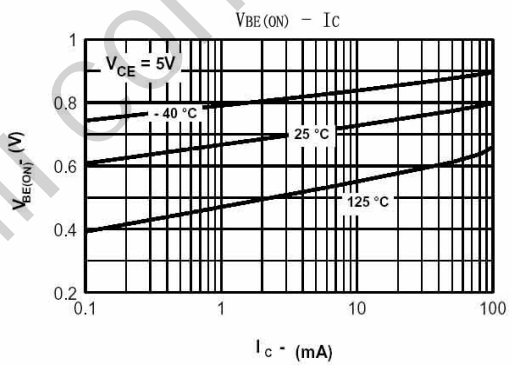
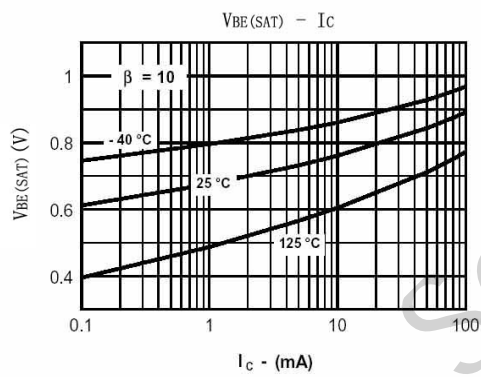
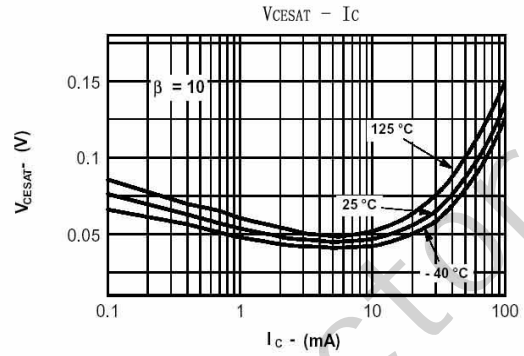
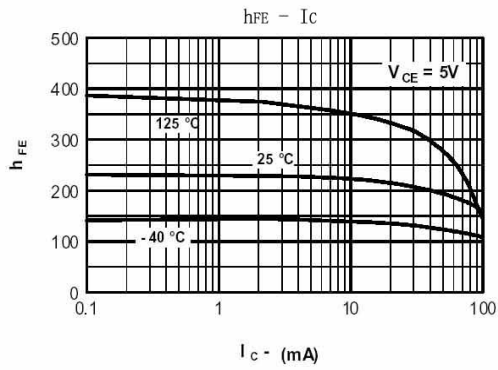
**极限参数 / Absolute Maximum Ratings(Ta=25°C)**

参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	$V_{CBO}$	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	$V_{CBO}$	$I_C=10\mu A$ $I_E=0$	60			V
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=1.0mA$ $I_B=0$	40			V
Emitter to Base Breakdown Voltage	$V_{EBO}$	$I_E=10\mu A$ $I_C=0$	6.0			V
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=50V$ $I_E=0$			0.05	$\mu A$
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=5.0V$ $I_C=0$			0.05	$\mu A$
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	$V_{CE(sat)}$	$I_C=50mA$ $I_B=5.0mA$			0.3	V
Base to Emitter Saturation Voltage	$V_{BE(sat)}$	$I_C=50mA$ $I_B=5.0mA$			0.95	V
Current Gain Bandwidth Product	$f_T$	$I_C=10mA$ $f=100MHz$ $V_{CE}=20V$	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	$\mu s$
Turn Off Time	$T_{off}$	$V_{CC}=3.0V$ $I_C=10mA$ $I_{B1}=-I_{B2}=1.0mA$			0.25	$\mu s$

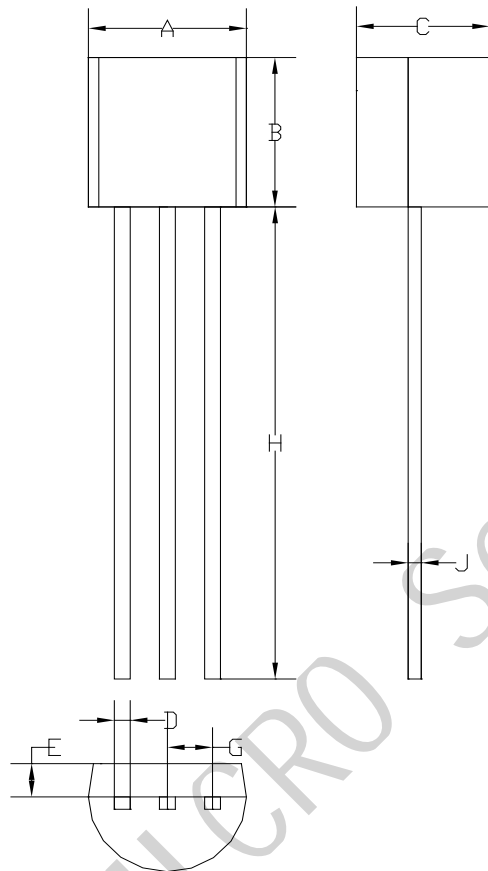
电参数曲线图 / Electrical Characteristic Curve



## Package Information

TO-92

Plastic surface mounted package



TO-92		
Dim	Min	Max
A	4.28	4.7
B	4.68	4.7
C	3.25 Typical	
D	0.38	0.55
E	1.1	1.4
G	1.27 Typical	
H	12.03	14.5
J	0.36	0.51
All Dimensions in mm		

单击下面可查看定价，库存，交付和生命周期等信息

[>>JSMSEMI\(杰盛微\)](#)