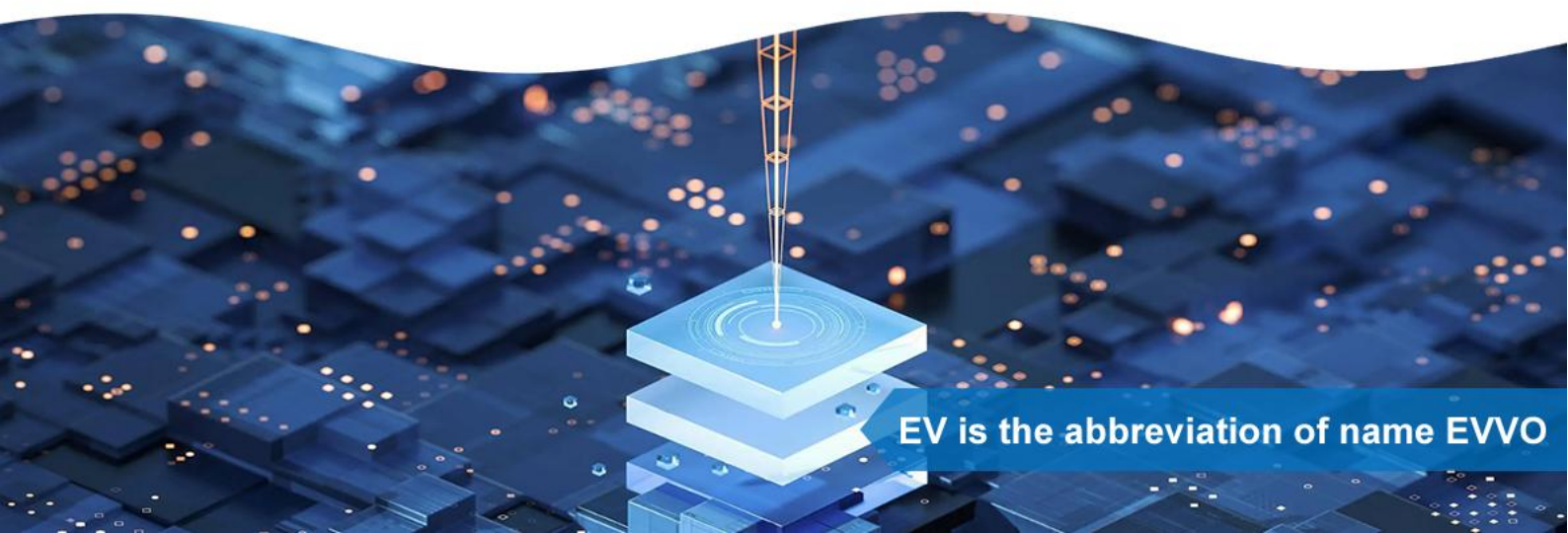
EVVOSEMI®
THINK CHANGE DO

ESD TVS MOS LDO Diode Sensor DC-DC

Product Specification

Domestic Part Number	2N3904 Series
Overseas Part Number	2N3904 Series
Equivalent Part Number	2N3904 Series



描述 / Descriptions

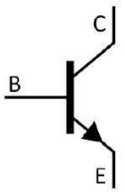
TO-92 塑封封装 NPN 半导体三极管。Silicon NPN transistor in a TO-92 Plastic Package.

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



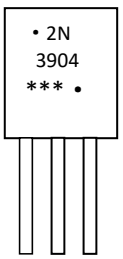
引脚排列 / Pinning

1 2 3

PIN1：Collector PIN 2：Base PIN 3：Emitter

放大及印章代码 / h_{FE} Classifications & Marking

*HFE(1)分档及打印

分 档	O	Y	G			印记见下 **具体内容以打印为准**
$H_{FE(1)}$	100-150	150-200	200-250			
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					

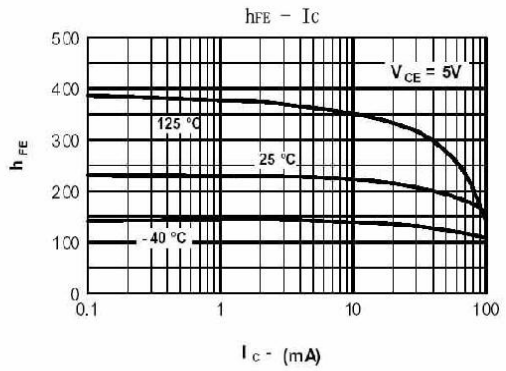
极限参数 / Absolute Maximum Ratings(Ta=25℃)

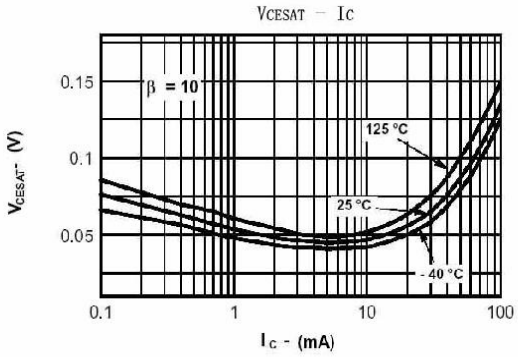
参数 Parameter	符号 Symbol	数值 Rating	单位 Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	40	V
Emitter to Base Voltage	V_{EBO}	6.0	V
Collector Current - Continuous	I_C	200	mA
Collector Power Dissipation	P_C	625	mW
Junction Temperature	T_j	150	℃
Storage Temperature Range	T_{stg}	-55～150	℃

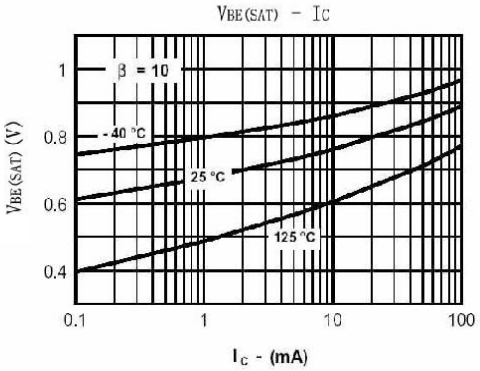
电性能参数 / Electrical Characteristics(Ta=25℃)

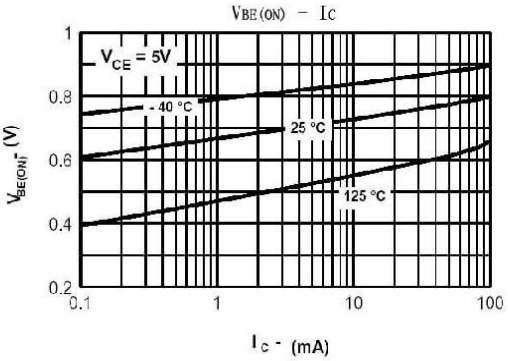
参数 Parameter	符号 Symbol	测试条件 Test Conditions	最小值 Min	典型值 Typ	最大值 Max	单位 Unit
Collector to Base Breakdown Voltage	V_{CBO}	I_C=10μA I_E=0	60			V
Collector to Emitter Breakdown Voltage	V_{CEO}	I_C=1.0mA I_B=0	40			V
Emitter to Base Breakdown Voltage	V_{EBO}	I_E=10μA I_C=0	6.0			V
Collector Cut-Off Current	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

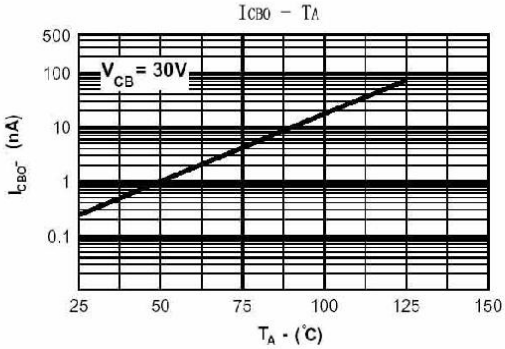
电参数曲线图 / Electrical Characteristic Curve

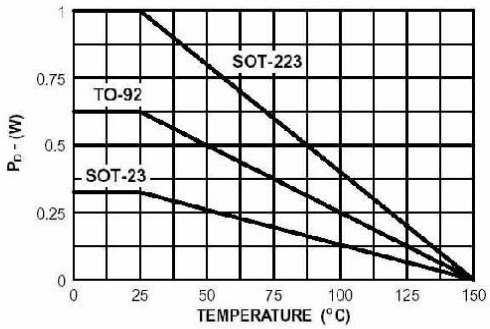












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