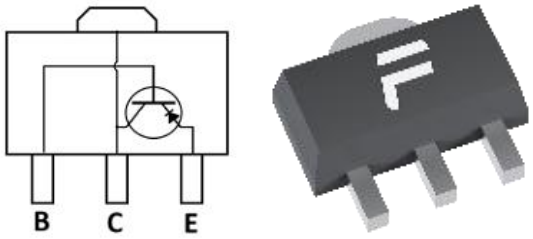
2SB1132R

SOT-89-3L　Bipolar Transistor 双极型三极管



■Features 特点

PNP　General Purpose 通用

■Absolute Maximum Ratings 最大额定值

Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
Collector-Base Voltage 集电极基极电压	V_{CBO}	-40	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	-32	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	-5	V
Collector Current 集电极电流	I_C	-1000	mA
Power dissipation 耗散功率	$P_C(T_a=25℃)$	500	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\Theta JA}$	250	℃/W
Junction and Storage Temperature 结温和储藏温度	T_J,T_{stg}	-55to+150℃	

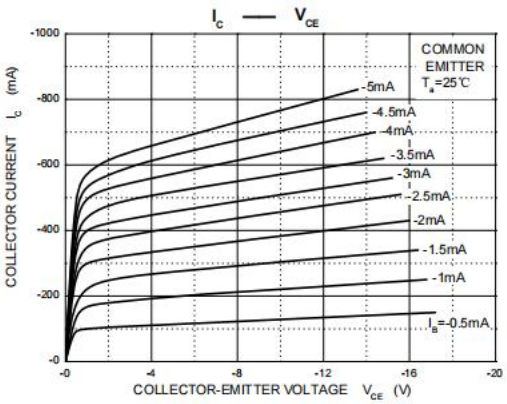
■Device Marking 产品打标

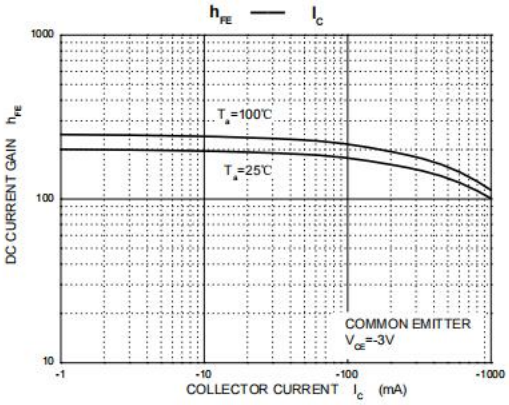
H_{FE}	82-180(P)	120-270(Q)	180-390(R)
Mark	BAP	BAQ	BAR

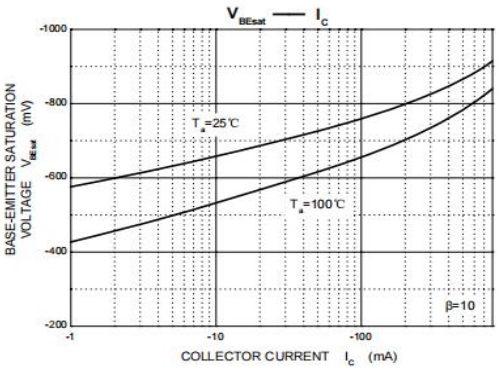
■Electrical Characteristics 电特性

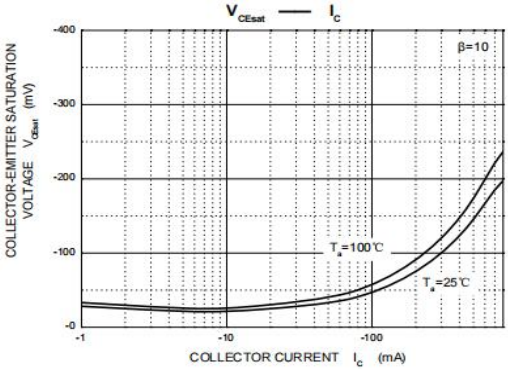
(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃**)**

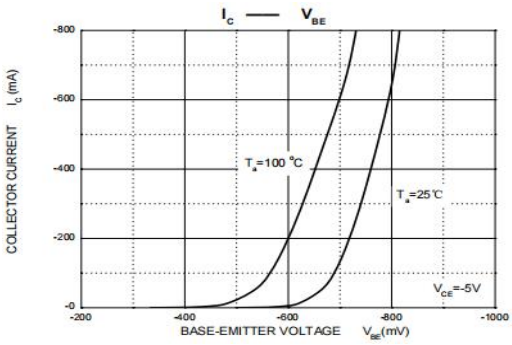
Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压(I_C= -50μA，I_E=0)	BV_{CBO}	-40	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(I_C= -1mA，I_B=0)	BV_{CEO}	-32	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I_E= -50μA，I_C=0)	BV_{EBO}	-5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V_{CB}= -20V，I_E=0)	I_{CBO}	—	—	-0.5	μA
Emitter-Base Leakage Current 发射极基极漏电流(V_{EB}= -4V，I_C=0)	I_{EBO}	—	—	-0.5	μA
DC Current Gain 直流电流增益(V_{CE}= -3V，I_C= -100mA)	H_{FE}	82	—	390	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I_C= -500mA，I_B= -50mA)	$V_{CE(sat)}$	—	—	-0.4	V
Base-Emitter Saturation Voltage 基极发射极饱和压降(I_C= -500mA，I_B= -50mA)	$V_{BE(sat)}$	—	—	-1.2	V
Base-Emitter On Voltage 基极发射极导通电压(V_{CE}= -10V，I_C= -500mA)	$V_{BE(on)}$	—	—	-1.2	V
Transition Frequency 特征频率(V_{CE}= -5V，I_C= -50mA)	f_T	—	150	—	MHz
Output Capacitance 输出电容(V_{CB}= -10V，I_E=0, f=1MHz)	C_{ob}	—	20	—	pF

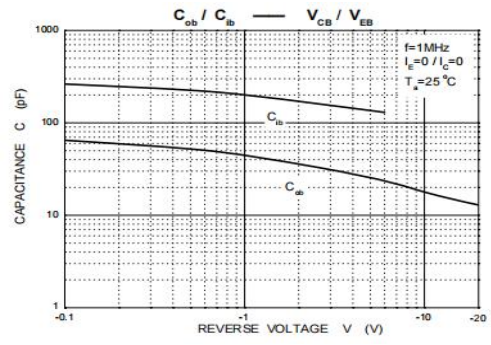

I_C — V_{CE}
COMMON EMITTER
T_a=25℃
-5mA
-4.5mA
-4mA
-3.5mA
-3mA
-2.5mA
-2mA
-1.5mA
-1mA
I_B=-0.5mA
COLLECTOR CURRENT I_C (mA)
COLLECTOR-EMITTER VOLTAGE V_{CE} (V)

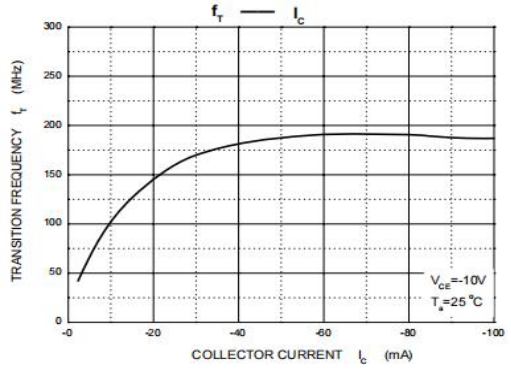

h_{FE} — I_C
T_a=100℃
T_a=25℃
COMMON EMITTER
V_{CE}=-3V
DC CURRENT GAIN h_{FE}
COLLECTOR CURRENT I_C (mA)

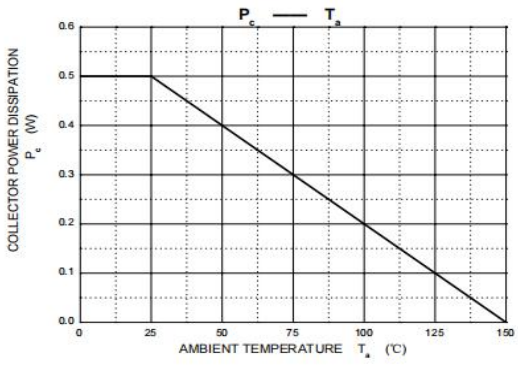

V_{BEsat} — I_C
T_a=25℃
T_a=100℃
β=10
BASE-EMITTER SATURATION VOLTAGE V_{BEsat} (mV)
COLLECTOR CURRENT I_C (mA)


V_{CEsat} — I_C
β=10
T_a=100℃
T_a=25℃
COLLECTOR-EMITTER SATURATION VOLTAGE V_{CEsat} (mV)
COLLECTOR CURRENT I_C (mA)

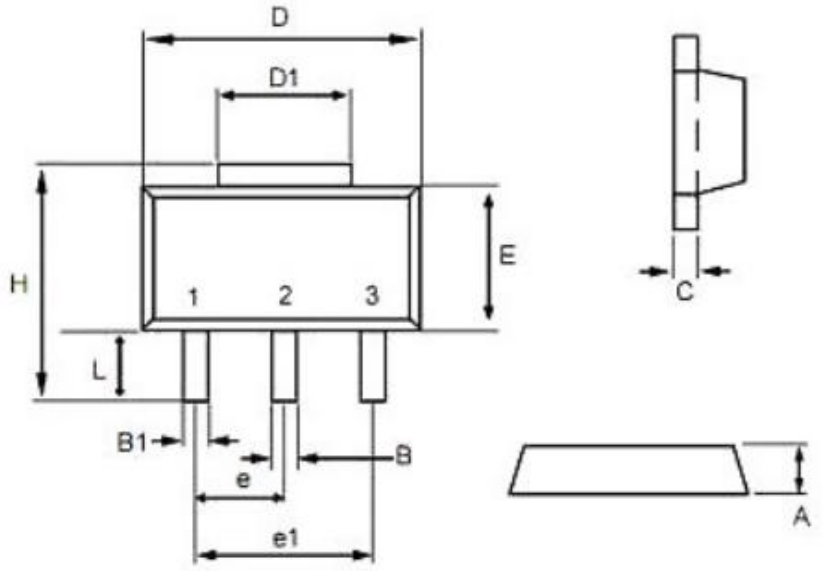

I_C — V_{BE}
T_a=100 ℃
T_a=25℃
V_{CE}=-5V
COLLECTOR CURRENT I_C (mA)
BASE-EMITTER VOLTAGE V_{BE}(mV)


C_{ob} / C_{ib} — V_{CB} / V_{EB}
f=1MHz
I_E=0 / I_C=0
T_a=25 ℃
C_{ib}
C_{ob}
CAPACITANCE C (pF)
REVERSE VOLTAGE V (V)


f_T — I_C
V_{CE}=-10V
T_a=25 ℃
TRANSITION FREQUENCY f_T (MHz)
COLLECTOR CURRENT I_C (mA)


P_c — T_a
COLLECTOR POWER DISSIPATION P_c (W)
AMBIENT TEMPERATURE T_a (℃)

■Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.40	1.60	0.055	0.063
B	0.40	0.56	0.016	0.022
B1	0.35	0.48	0.014	0.019
C	0.35	0.44	0.014	0.017
D	4.40	4.60	0.173	0.181
D1	1.35	1.83	0.053	0.072
e	1.45	1.55	0.057	0.061
e1	2.95	3.05	0.116	0.120
E	2.29	2.60	0.090	0.102
H	3.75	4.25	0.148	0.167
L	0.80	1.20	0.031	0.047