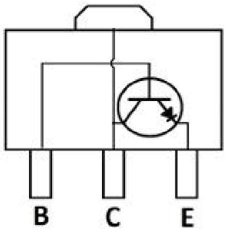
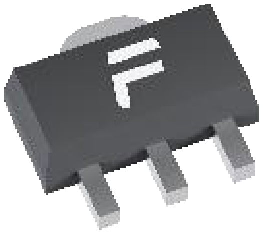
SOT-89-3L Bipolar Transistor 双极型三极管





■Features 特点

NPN Low equivalent on-resistance 低等效电阻

■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}	170	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	150	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	7	V
Collector Current 集电极电流	I_C	1000	mA
Collector Pulse Current 集电极脉冲电流	I_{CM}	2000	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

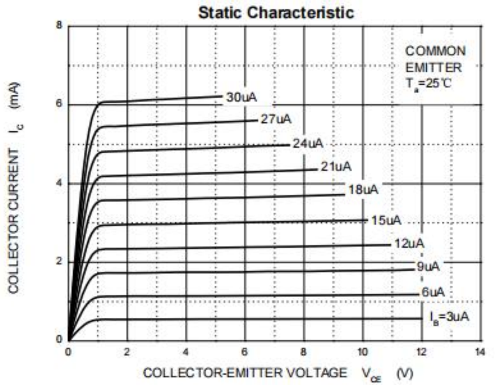
FCX495=495

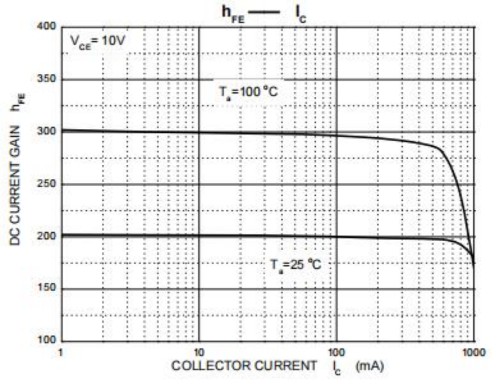
■Electrical Characteristics 电特性

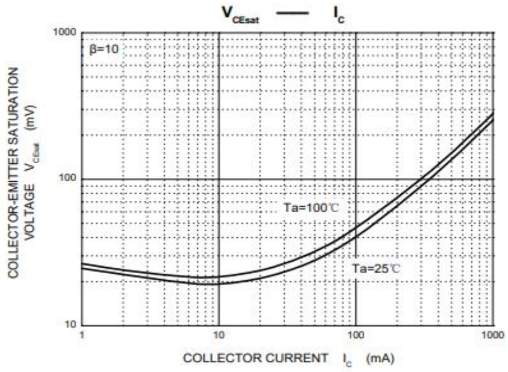
(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃)

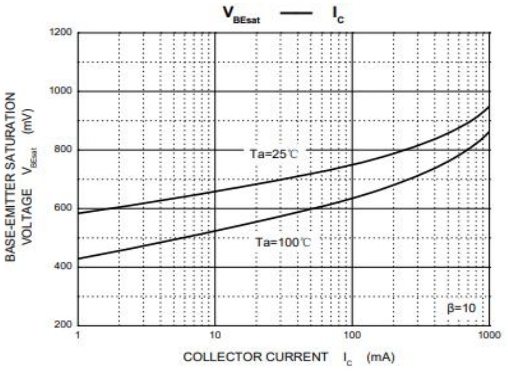
Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压(I_C= 100μA，I_E=0)	BV_{CBO}	170	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(I_C= 10mA，I_B=0)	BV_{CEO}	150	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I_E= 100μA，I_C=0)	BV_{EBO}	7	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V_{CB}= 150V，I_E=0)	I_{CBO}	—	—	100	nA
Collector-Emitter Leakage Current 集电极发射极漏电流(V_{CE}=150V,V_{BE}= 0V)	I_{CES}	—	—	100	nA
Emitter-Base Leakage Current 发射极基极漏电流(V_{EB}= 5V，I_C=0)	I_{EBO}	—	—	100	nA
DC Current Gain(V_{CE}= 10V，I_C= 1mA) 直流电流增益(V_{CE}= 10V，I_C= 250mA) (V_{CE}= 10V，I_C= 500mA) (V_{CE}= 10V，I_C= 1000mA)	H_{FE}	100 100 50 10	—	300	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降 (I_C= 250mA,I_B= 25mA) (I_C= 500mA,I_B= 50mA)	$V_{CE(sat)}$	—	—	0.2 0.3	V
Base-Emitter Saturation Voltage 基极发射极饱和压降 (I_C= 500mA,I_B= 50mA)	$V_{BE(sat)}$	—	—	1	V
Base-Emitter On Voltage 基极发射极导通电压 (V_{CE}= 10V，I_C= 500mA)	$V_{BE(on)}$	—	—	1	V
Transition Frequency 特征频率(V_{CE}= 10V，I_C= 50mA)	f_T	100	—	—	MHz
Output Capacitance 输出电容(V_{CB}= 10V，I_E=0, f=1MHz)	C_{ob}	—	10	—	pF

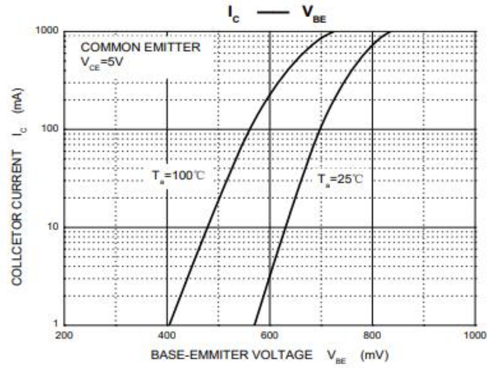
■Typical Characteristic Curve 典型特性曲线

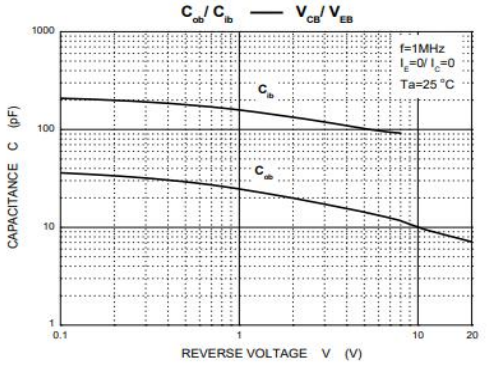


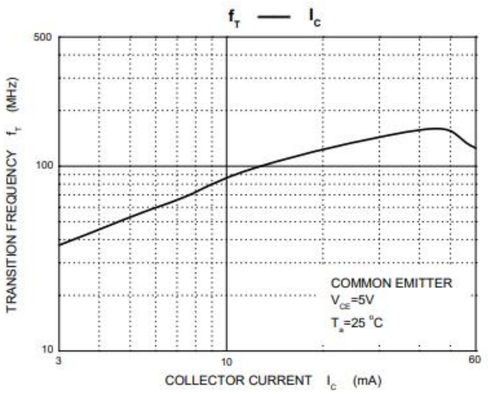


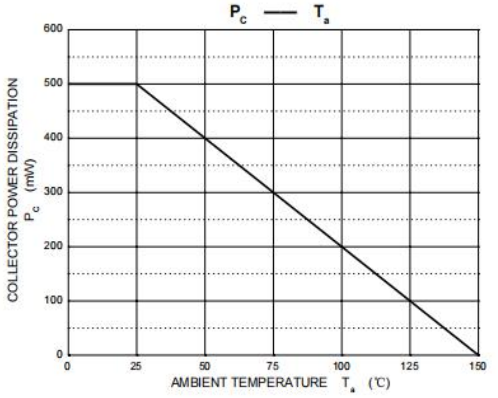




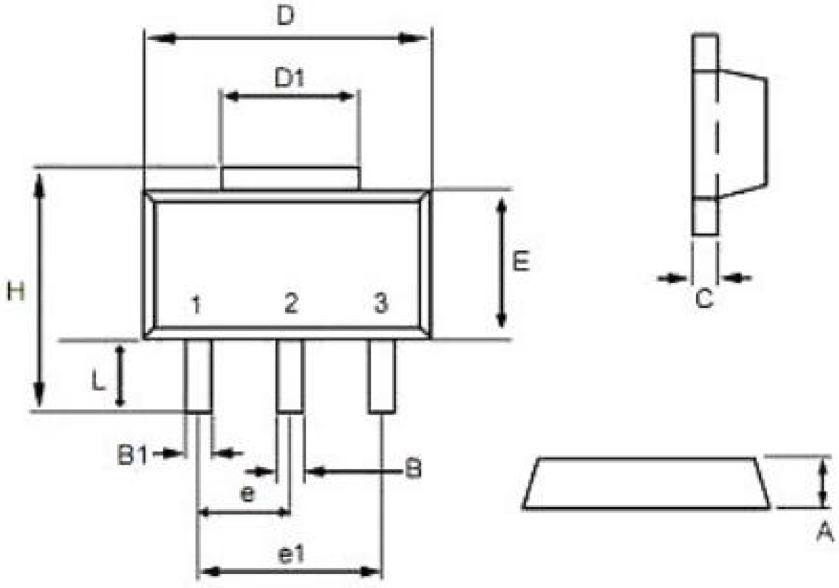








■Dimension 外形封装尺寸



<table>
<tr><th rowspan="2">Symbol</th><th colspan="2">Dimensions In Millimeters</th><th colspan="2">Dimensions In Inches</th></tr>
<tr><th>Min</th><th>Max</th><th>Min</th><th>Max</th></tr>
<tr><td>A</td><td>1.40</td><td>1.60</td><td>0.055</td><td>0.063</td></tr>
<tr><td>B</td><td>0.40</td><td>0.56</td><td>0.016</td><td>0.022</td></tr>
<tr><td>B1</td><td>0.35</td><td>0.48</td><td>0.014</td><td>0.019</td></tr>
<tr><td>C</td><td>0.35</td><td>0.44</td><td>0.014</td><td>0.017</td></tr>
<tr><td>D</td><td>4.40</td><td>4.60</td><td>0.173</td><td>0.181</td></tr>
<tr><td>D1</td><td>1.35</td><td>1.83</td><td>0.053</td><td>0.072</td></tr>
<tr><td>e</td><td>1.45</td><td>1.55</td><td>0.057</td><td>0.061</td></tr>
<tr><td>e1</td><td>2.95</td><td>3.05</td><td>0.116</td><td>0.120</td></tr>
<tr><td>E</td><td>2.29</td><td>2.60</td><td>0.090</td><td>0.102</td></tr>
<tr><td>H</td><td>3.75</td><td>4.25</td><td>0.148</td><td>0.167</td></tr>
<tr><td>L</td><td>0.80</td><td>1.20</td><td>0.031</td><td>0.047</td></tr>
</table>