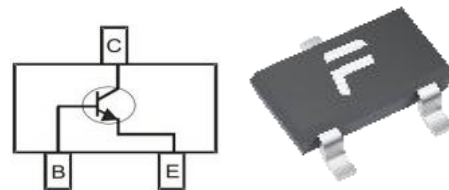


SOT-23 Bipolar Transistor 双极型三极管

■ Features 特点

NPN General Purpose 通用



■ Absolute Maximum Ratings 最大额定值

Characteristic 特性参数	Symbol 符号	BC849 B/C	BC850 B/C	Unit 单位
Collector-Base Voltage 集电极基极电压	V_{CBO}	30	50	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	30	45	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	5	5	V
Collector Current 集电极电流	I_C	100		mA
Power dissipation 耗散功率	$P_C(T_a=25^{\circ}C)$	250		mW
Thermal Resistance Junction-Ambient 热阻	$R_{\theta JA}$	500		$^{\circ}C/W$
Junction and Storage Temperature 结温和储藏温度	T_J, T_{stg}	-55to+150 $^{\circ}C$		

■ Device Marking 产品打标

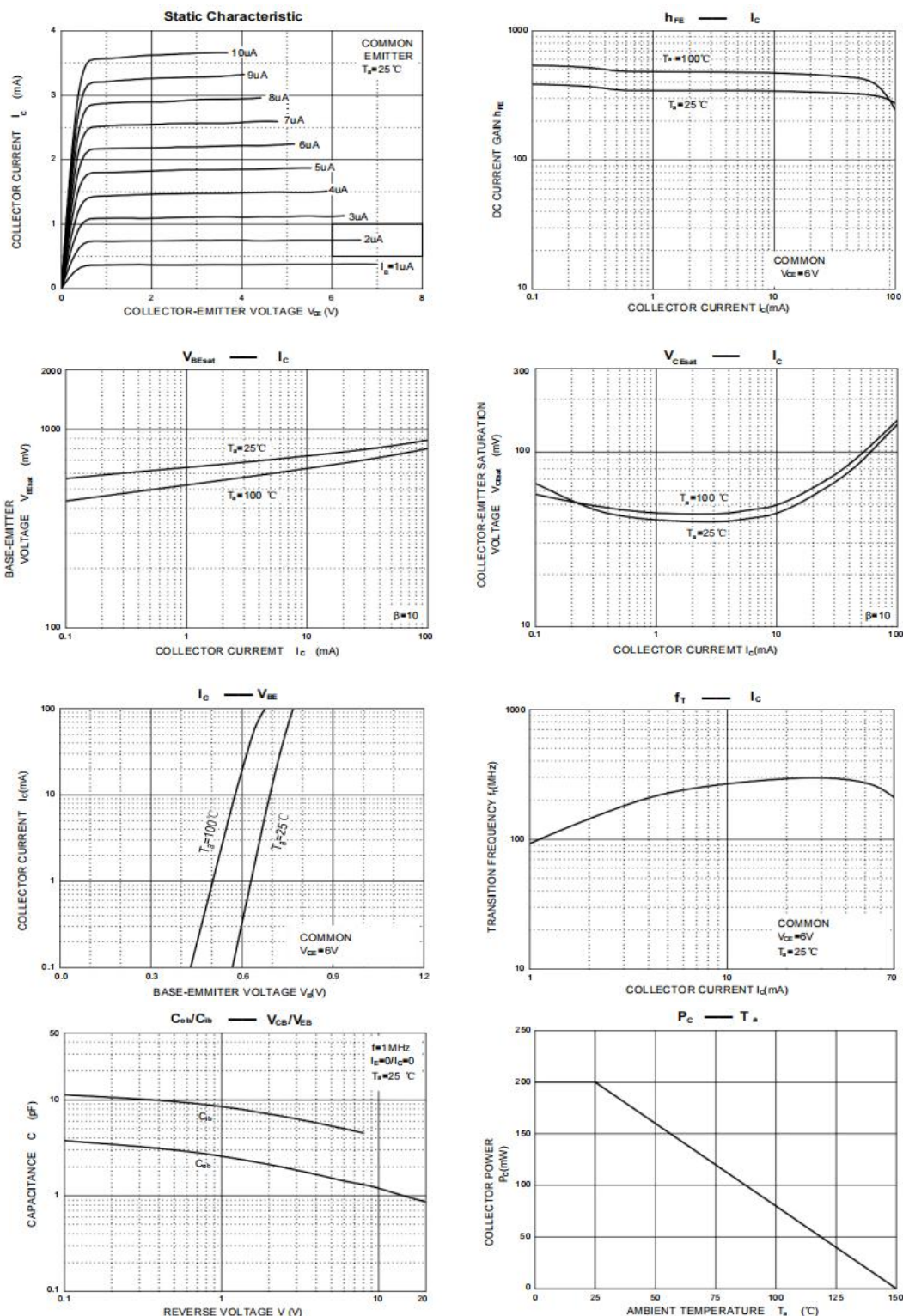
H_{FE}		200-450(B)	420-800(C)
Mark	BC849	2B	2C
	BC850	2F	2G

■Electrical Characteristics 电特性

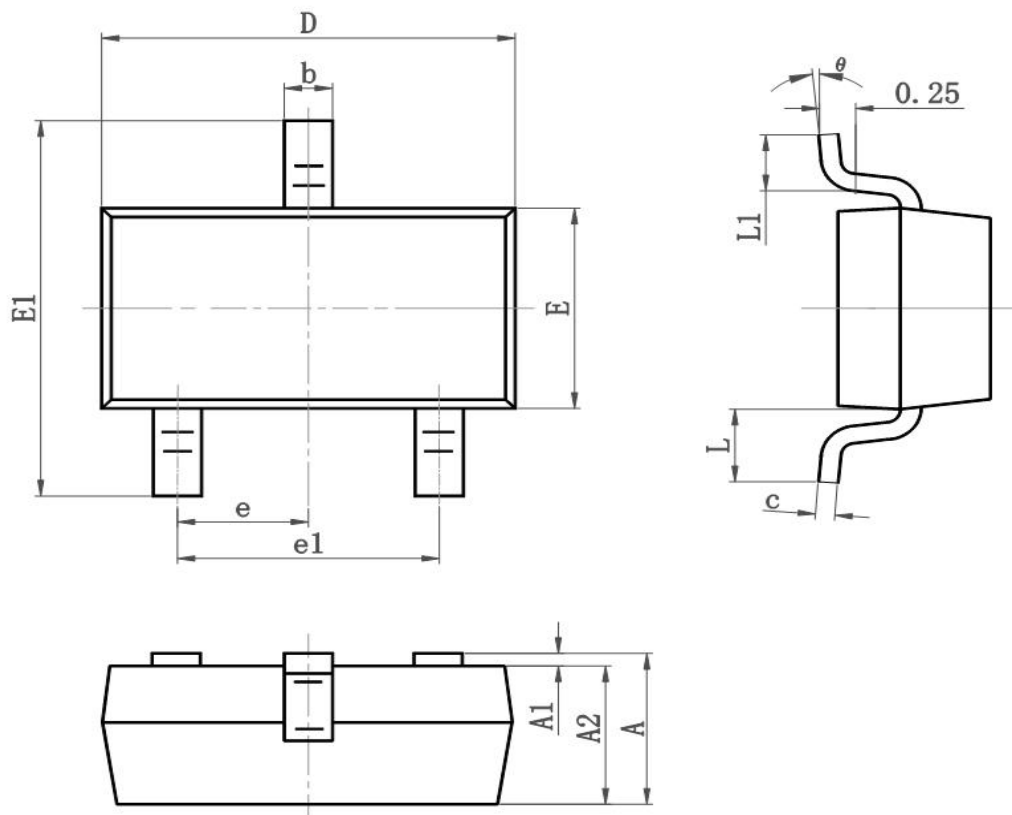
(TA=25℃ unless otherwise noted 如无特殊说明, 温度为 25℃)

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(IC=10uA, IE=0)	BC849B/C BC850B/C	BV _{CBO}	50 30	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(IC=10mA, IB=0)	BC849B/C BC850B/C	BV _{CEO}	45 30	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(IE=10uA, IC=0)		BV _{EBO}	5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流	BC849B/C(V _{CB} =50V,IE=0) BC850B/C(V _{CB} =30V,IE=0)	I _{CBO}	—	—	100	nA
Emitter-Base Leakage Current 发射极基极漏电流(V _{EB} =5V, IC=0)		I _{EBO}	—	—	100	nA
DC Current Gain 直流电 流增益(V _{CE} =5V,IC=10μA)	BC849B/BC850B BC849C/BC850C	H _{FE}		240 450		
DC Current Gain 直流电 流增益(V _{CE} =5V,IC=2mA)	BC849B/BC850B BC849C/BC850C	H _{FE}	200 420	290 520	450 800	
Collector-Emitter Saturation Voltage(IC=10mA, IB=0.5mA) 集电极发射极饱和压降(IC=100mA, IB=5mA)		V _{CE(sat)}	—	0.09 0.2	0.25 0.6	V
Base-Emitter Saturation Voltage(IC=10mA, IB=0.5mA) 基极发射极饱和压降(IC=100mA, IB=5mA)		V _{BE(sat)}	—	0.7 0.9	1 1.1	V
Base-Emitter On Voltage(V _{CE} =5V,IC=2mA) 基极发射极导通压降(V _{CE} =5V,IC=10mA)		V _{BE(on)}	0.58	0.66	0.7 0.77	V
Transition Frequency 特征频率(V _{CE} =5V, IC=10mA)		f _T	100	—	—	MHz
Noise Figure 噪声系数 (V _{CE} =6V, IC=0.1mA, f=1KHz)		NF	—	—	4	dB
Output Capacitance 输出电容(V _{CB} =10V, IE=0, f=1MHz)		C _{ob}	—	4.5	—	pF

■ Typical Characteristic Curve 典型特性曲线



■Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.050	0.055
E1	2.250	2.550	0.089	0.100
e	0.900	1.00	0.035	0.039
e1	1.800	2.000	0.071	0.079
L	0.500	0.600	0.020	0.024
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°