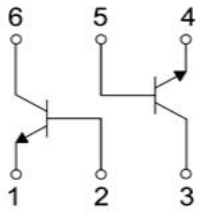
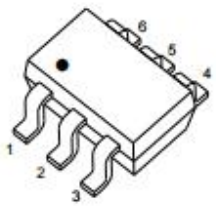
BC847BS

SOT-363 Bipolar Transistor 双极型三极管





■Features 特点

NPN+NPN　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}	50	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	45	V
Emitter-Base Voltage 发射极基极电压	V_{EBO}	6	V
Collector Current 集电极电流	I_C	100	mA
Power dissipation 耗散功率	$P_C(T_a=25℃)$	200	mW
Thermal Resistance Junction-Ambient 热阻	$R_{\Theta JA}$	625	℃/W
Junction and Storage Temperature 结温和储藏温度	T_J,T_{stg}	-55to+150℃	

■Device Marking 产品打标

Marking	1F

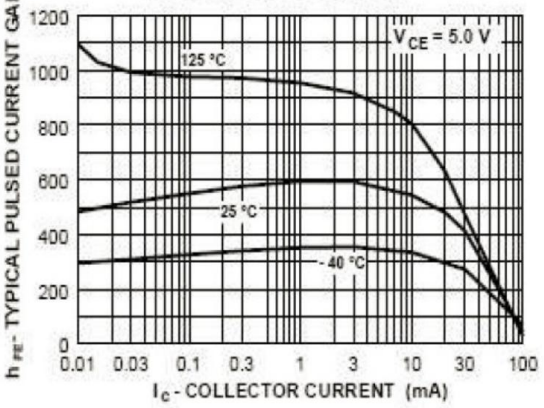
■Electrical Characteristics 电特性

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

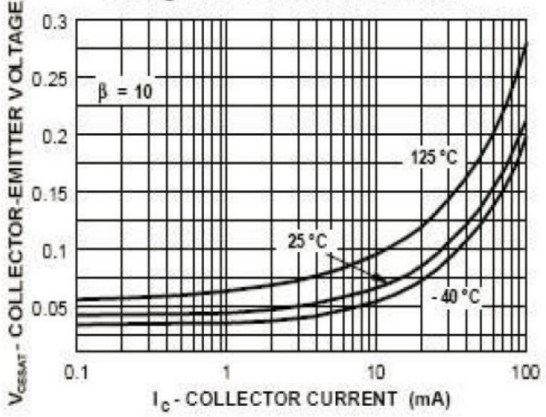
Characteristic 特性参数	Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压(I_C=10uA，I_E=0)	BV_{CBO}	50	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压(I_C=1mA，I_B=0)	BV_{CEO}	45	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I_E=10uA，I_C=0)	BV_{EBO}	6	—	—	V
Collector-Base Leakage Current 集电极基极漏电流(V_{CB}=30V，I_E=0)	I_{CBO}	—	—	15	nA
Emitter-Base Leakage Current 发射极基极漏电流(V_{EB}=4V，I_C=0)	I_{EBO}	—	—	15	nA
DC Current Gain 直流电流增益(V_{CE}=5V，I_C=2mA)	H_{FE}	200	—	450	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I_C=10mA，I_B=0.5mA) (I_C=100mA，I_B=5mA)	$V_{CE(sat)}$	—	—	0.25 0.65	V
Base-Emitter Voltage 基极发射极压降(V_{CE}=5V，I_C=2mA) (V_{CE}=5V，I_C=10mA)	V_{BE}	0.58	—	0.7 0.77	V
Transition Frequency 特征频率(V_{CE}=5V，I_C=20mA，f=100MHz)	f_T	—	200	—	MHz
Output Capacitance 输出电容(V_{CB}=10V，I_E=0, f=1MHz)	Cob	—	2	—	pF

■Typical Characteristic Curve 典型特性曲线

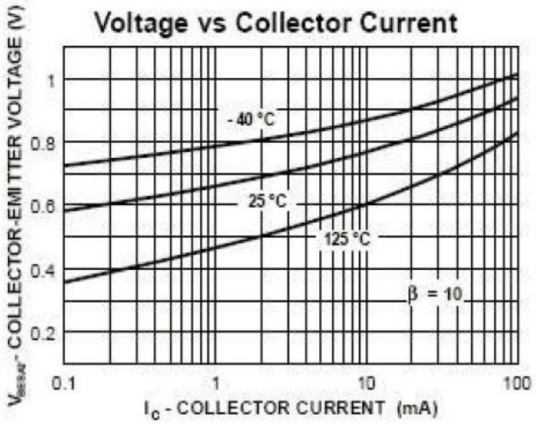
Typical Pulsed Current Gain vs Collector Current



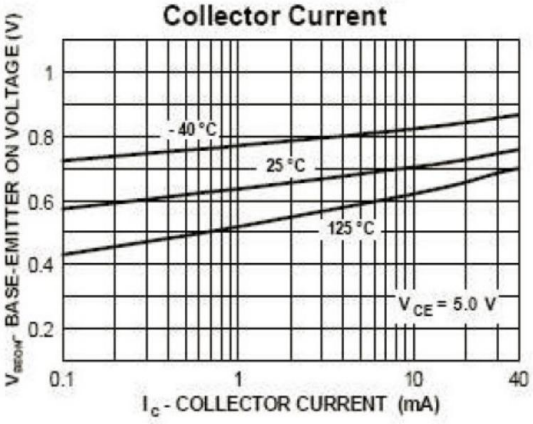
Collector-Emitter Saturation Voltage vs Collector Current



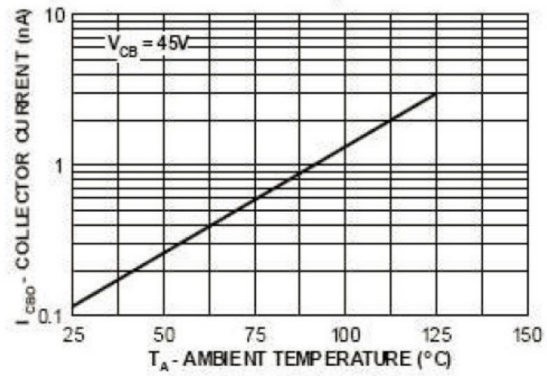
Base-Emitter Saturation Voltage vs Collector Current



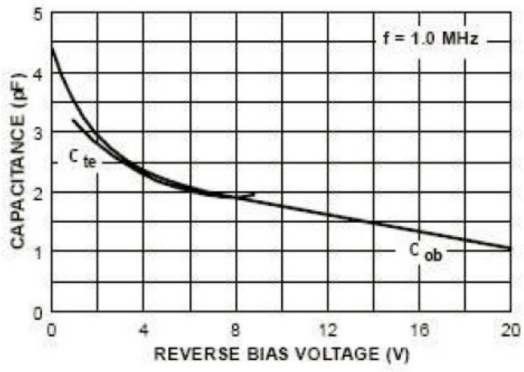
Base-Emitter ON Voltage vs Collector Current



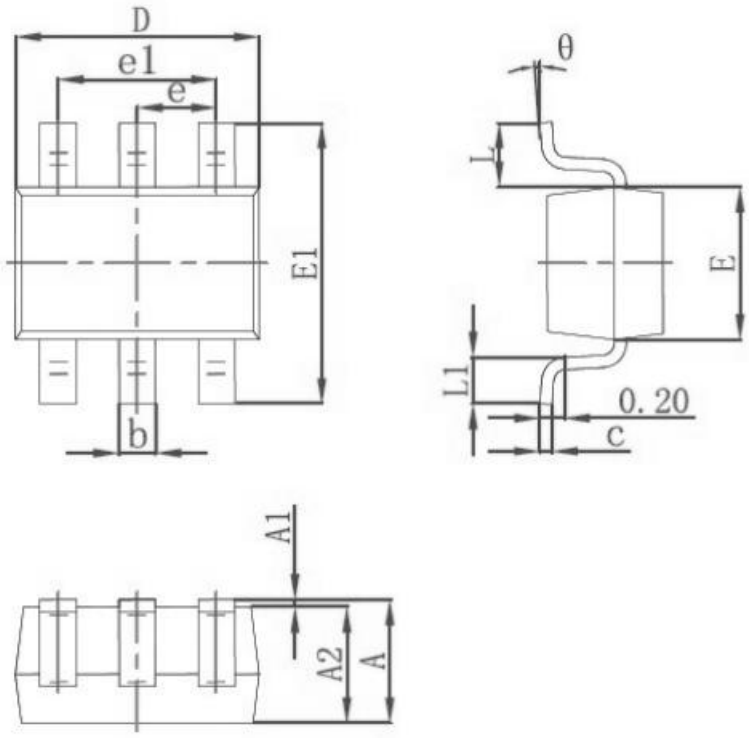
Collector-Cutoff Current vs Ambient Temperature



Input and Output Capacitance vs Reverse Bias Voltage



■Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters	
	Min	Max
A	0.900	1.100
A1	0.000	0.100
A2	0.900	1.000
b	0.150	0.350
c	0.100	0.150
D	2.000	2.200
E	1.150	1.350
E1	2.150	2.400
e	0.650 TYP	
e1	1.200	1.400
L	0.525 REF	
L1	0.260	0.460
θ	0°	8°