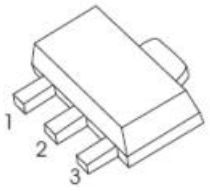
SOT-89 Bipolar Transistor 双极型三极管



■Features 特点

NPN General Purpose 通用

■Absolute Maximum Ratings 最大额定值

Characteristic 特性参数	Symbol 符号	BCX54/ -10/-16	BCX55/ -10/-16	BCX56/ -10/-16	Unit 单位
Collector-Base Voltage 集电极基极电压	V_{CBO}	45	60	100	V
Collector-Emitter Voltage 集电极发射极电压	V_{CEO}	45	60	80	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

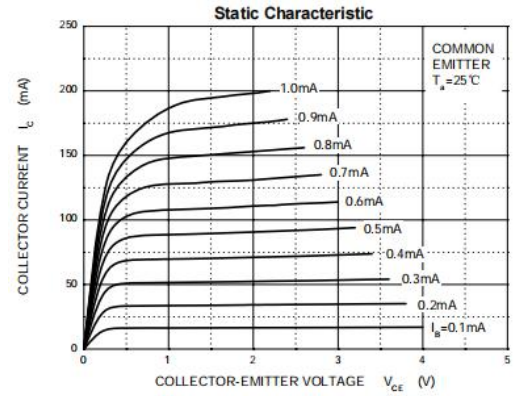
$H_{FE}(2)$		63-250	63-160(-10)	100-250(-16)
Mark	BCX54	BA	BC	BD
	BCX55	BE	BG	BM
	BCX56	BH	BK	BL

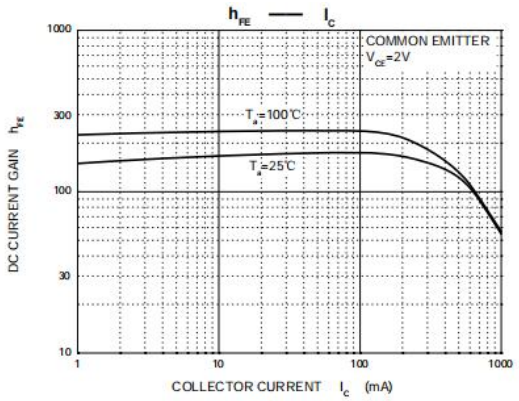
■Electrical Characteristics 电特性

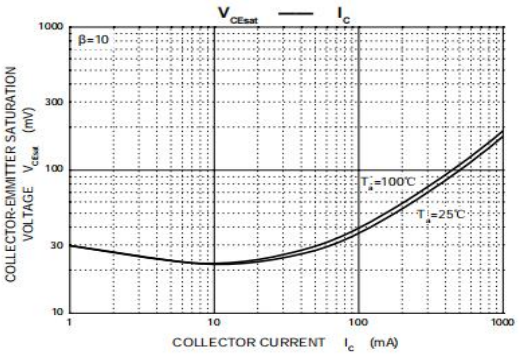
(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃)

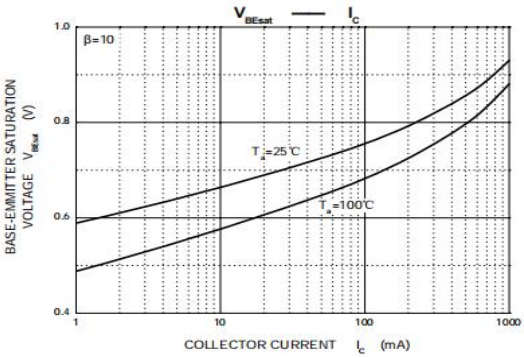
Characteristic 特性参数		Symbol 符号	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector-Base Breakdown Voltage 集电极基极击穿电压 (I_C= 100uA，I_E=0)	BCX54/-10/-16 BCX55/-10/-16 BCX56/-10/-16	BV_{CBO}	45 60 100	—	—	V
Collector-Emitter Breakdown Voltage 集电极发射极击穿电压 (I_C= 10mA，I_B=0)	BCX54/-10/-16 BCX55/-10/-16 BCX56/-10/-16	BV_{CEO}	45 60 80	—	—	V
Emitter-Base Breakdown Voltage 发射极基极击穿电压(I_E= 100uA，I_C=0)		BV_{EBO}	5	—	—	V
Collector-Base Leakage Current 集电极基极漏电流	BCX54/-10/-16 (V_{CB}= 30V,I_E=0) BCX55/-10/-16 (V_{CB}= 50V,I_E=0) BCX56/-10/-16 (V_{CB}= 80V,I_E=0)	I_{CBO}	—	—	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 直流电流增益(V_{CE}= 2V,I_C= 5mA)		H_{FE}(1)	40	—	—	
DC Current Gain 直流电流增益 (V_{CE}=2V,I_C=0.15A)	BCX54/BCX55/BCX56 BCX54/BCX55/BCX56-10 BCX54/BCX55/BCX56-16	H_{FE}(2)	63 63 100	—	250 160 250	
DC Current Gain 直流电流增益(V_{CE}= 2V,I_C= 0.5A)		H_{FE}(3)	25	—	—	
Collector-Emitter Saturation Voltage 集电极发射极饱和压降(I_C= 0.5A，I_B= 50mA)		$V_{CE(sat)}$	—	—	0.5	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}= 2V,I_C= 0.5A)		$V_{BE(on)}$	—	—	1	V
Transition Frequency 特征频率(V_{CE}= 5V，I_C= 10mA)		f_T	—	130	—	MHz
Output Capacitance 输出电容(V_{CB}= 10V，I_E=0, f=1MHz)		C_{ob}	—	15	—	pF

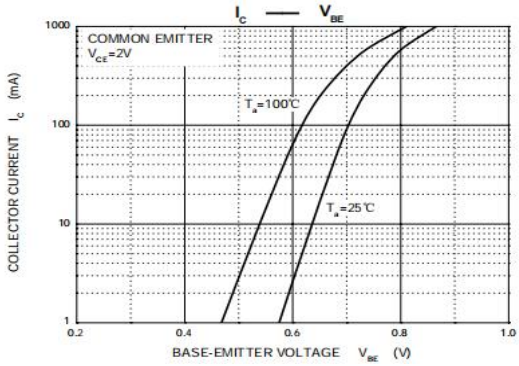
■Typical Characteristic Curve 典型特性曲线

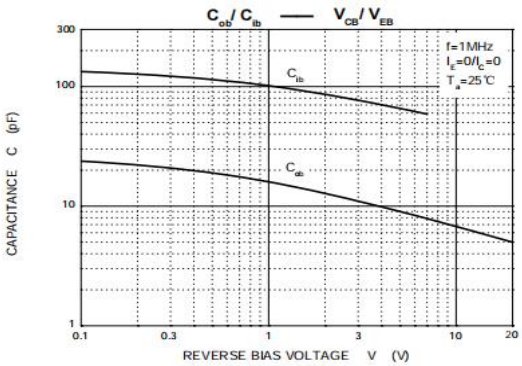


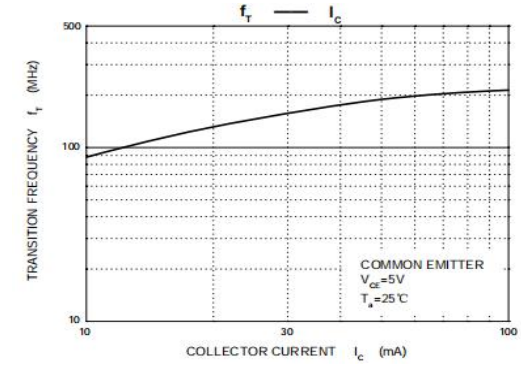


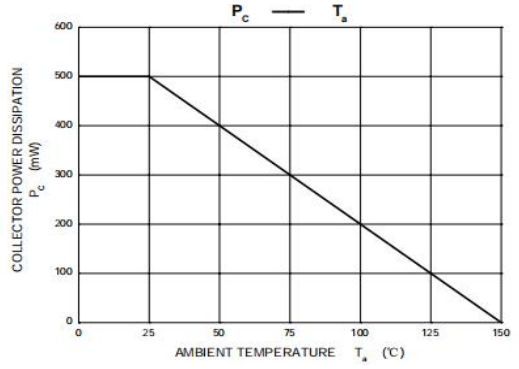




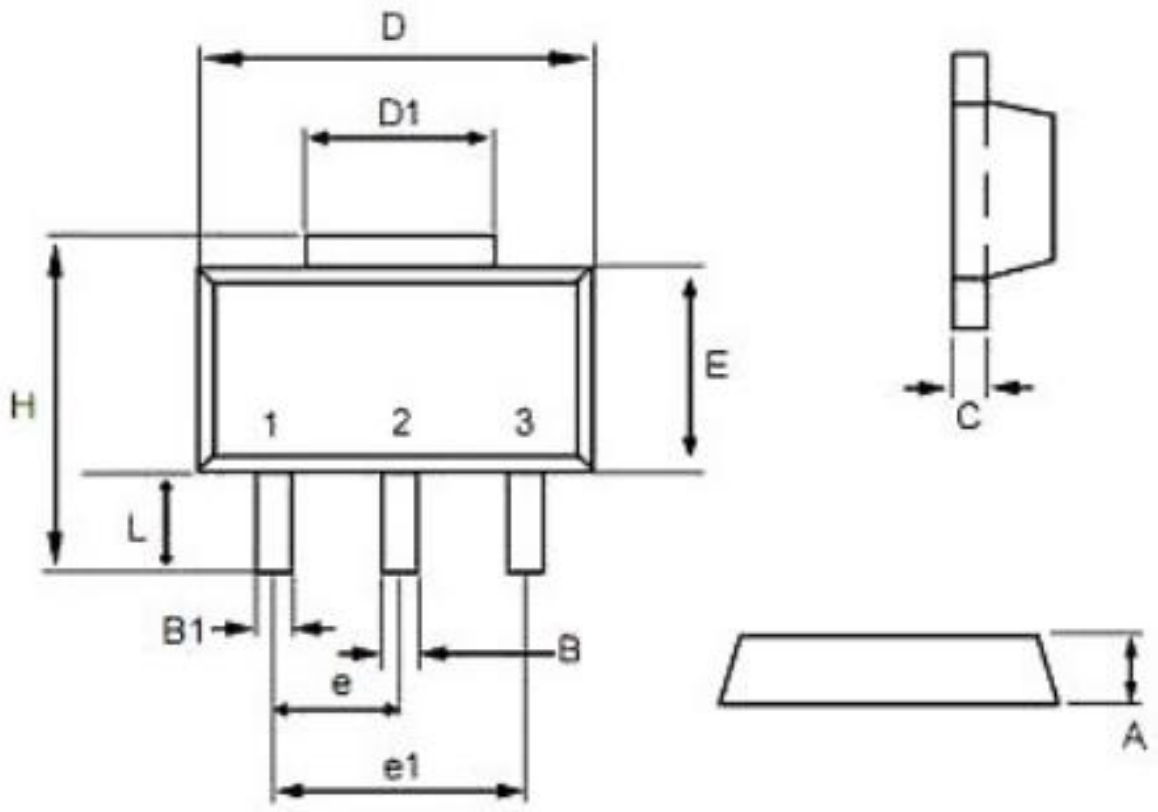








■Dimension 外形封装尺寸



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	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