

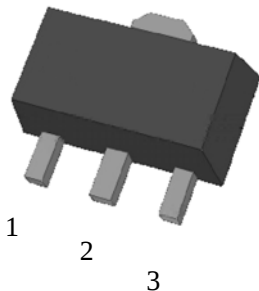
■ 描述 DESCRIPTIONS

SOT-89 塑封封装 PNP 三极管。PNP transistor in a SOT-89 Plastic Package.

■ 应用 APPLICATIONS

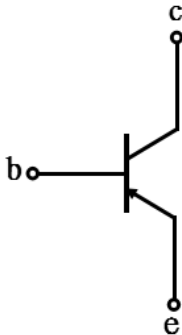
中功率放大应用。Middle power amplify application.

■ 引脚说明 PIN ASSIGNMENT



- 1 BASE
- 2 COLLECTOR
- 3 EMITTER

■ 内部等效电路 Equivalent Circuit



■ 型号构成 Name rule

基本名称 Name			辅助识别代码 Additional code			
第一部分 Part 1	第二部分 Part 2	第三部分 Part 3	第四部分 Part 4	第五部分 Part 5	第六部分 Part 6	第七部分 Part 7
品牌 Brand	产品类别 Type	产品型号 Model	分档 Value	分隔号 Separatrix	封装代码 Package	附加码（备用） Extra-code
FH		BCX53	-10 -16	“—”	R: SOT-89	E : ROHS G: 绿色封装 Green Package

■ 额定值 ABSOLUTE MAXIMUM RATINGS (TC=25°C unless otherwise noted)

Characteristic 特性参数	Symbol 符号	Rating 额定值	Unit 单位
Collector-Emitter Voltage 集电极-发射极电压	V_{CEO}	-80	Vdc
Collector-Base Voltage 集电极-基极电压	V_{CBO}	-100	Vdc
Emitter-Base Voltage 发射极-基极电压	V_{EBO}	-5	Vdc
Collector Current(DC) 集电极电流-直流	I_C	-1	Adc
Peak Collector Current 集电极峰值电流	I_{CM}	-1.5	Adc
Peak Base Current 基极电流	I_{BM}	-100	Adc
Collector Power Dissipation ¹ 集电极耗散功率 ¹	P_C	1	W
Junction Temperature 结温	T_j	150	°C
Storage Temperature Range 储存温度	T_{stg}	-55 to +150	°C

Note:1. Device mounted on a printed-circuit board, single sided copper, tinplated, mounting pad for collector 6 cm².

■ 电特性 ELECTRICAL CHARACTERISTICS

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

Characteristic 特性参数	Symbol 符号	Test Condition 测试条件	Min 最小值	Type 典型值	Max 最大值	Unit 单位
Collector Cutoff Current 集电极截止电流	I_{CBO}	$V_{CB} = -30V, I_E = 0$	-	-	-100	nA
		$V_{CB} = -30V, I_E = 0,$ $T_j = 150^\circ C$	-	-	-20	μA
Emitter Cutoff Current 发射极截止电流	I_{EBO}	$V_{EB} = -4V, I_C = 0$	-	-	-20	nA
DC Current Gain 直流电流增益	h_{FE}	$V_{CE} = -2V, I_C = -5mA$	25	-	-	-
		$V_{CE} = -2V, I_C = -150mA$	60	160	250	
		$V_{CE} = -2V, I_C = -500mA$	25	-	-	
Collector-Emitter Saturation Voltage 基极-发射极饱和压降	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$	-	-	-0.5	V
Base-Emitter Voltage 集电极-发射极电压	V_{BE}	$I_C = -500mA; V_{CE} = -2 V$	-	-	-1.0	V
Transition Frequency 特征频率	f_T	$I_C = 50 mA; V_{CE} = -10 V;$ $f = 20 MHz$	-	125	-	MHz

■ 典型特性 TYPICAL CHARACTERISTICS

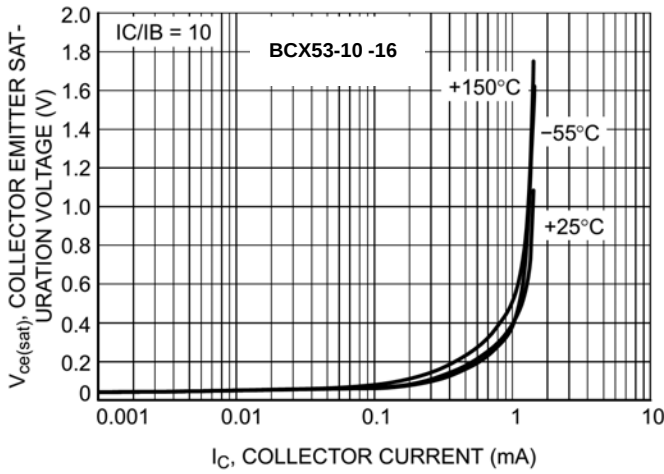


Figure 1. Collector Emitter Saturation Voltage vs. Collector Current

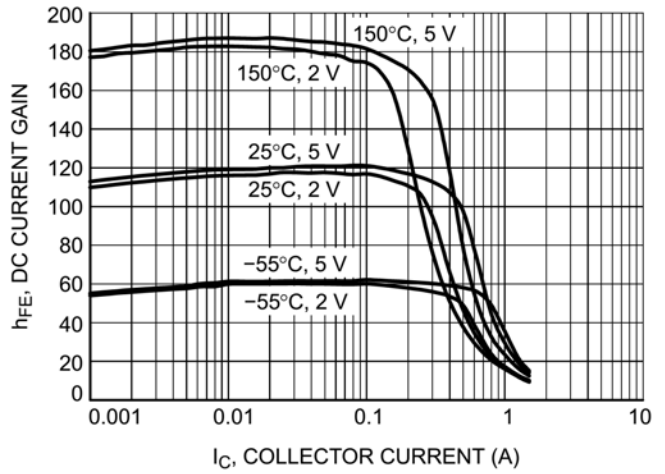


Figure 2. DC Current Gain vs. Collector Current

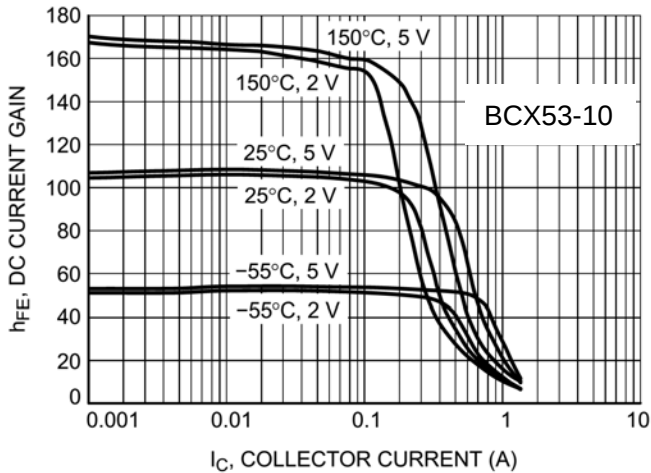


Figure 3. DC Current Gain vs. Collector Current

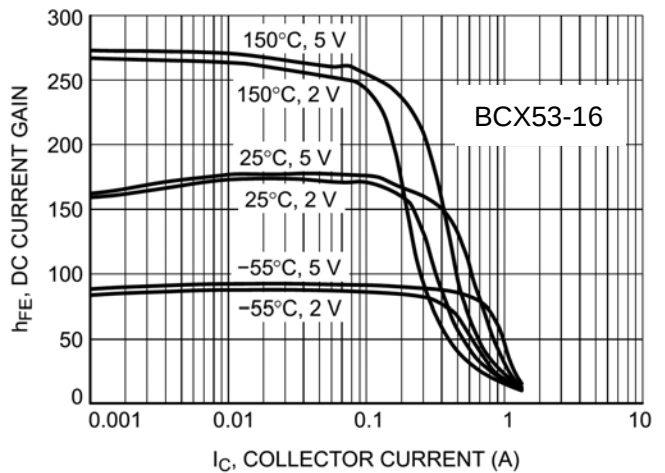


Figure 4. DC Current Gain vs. Collector Current

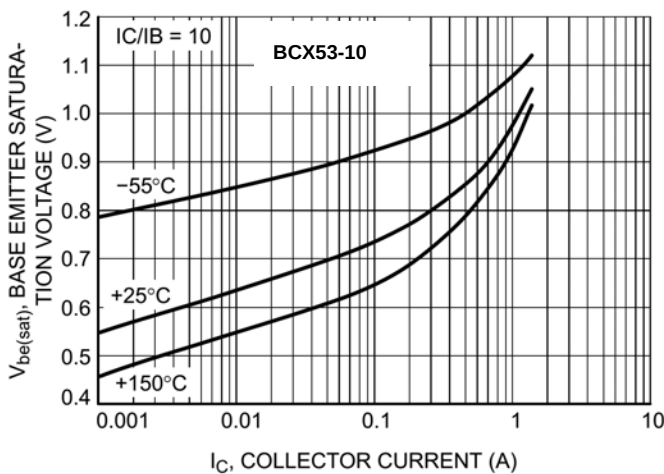


Figure 5. Base Emitter Saturation Voltage vs. Collector Current

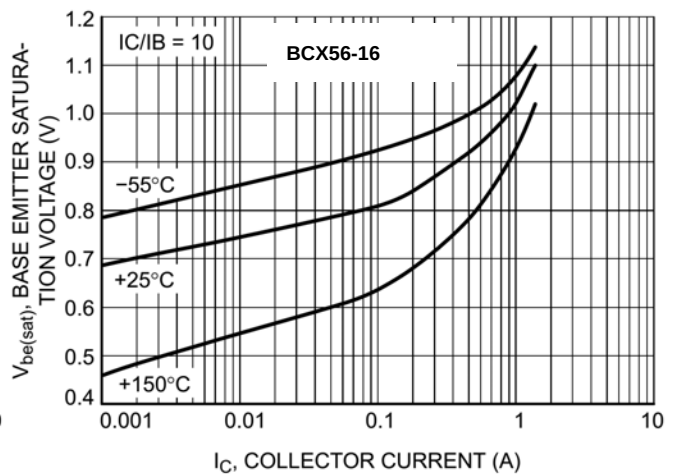


Figure 6. Base Emitter Saturation Voltage vs. Collector Current

■ 典型特性 TYPICAL CHARACTERISTICS

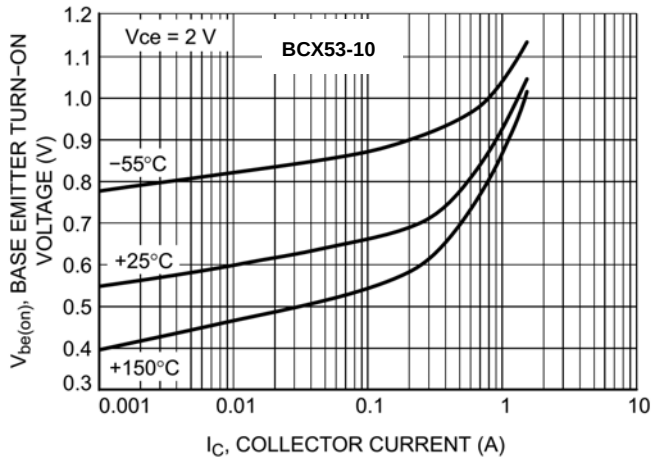


Figure 7. Base Emitter Turn-On Voltage vs. Collector Current $V_{BE(on)}$

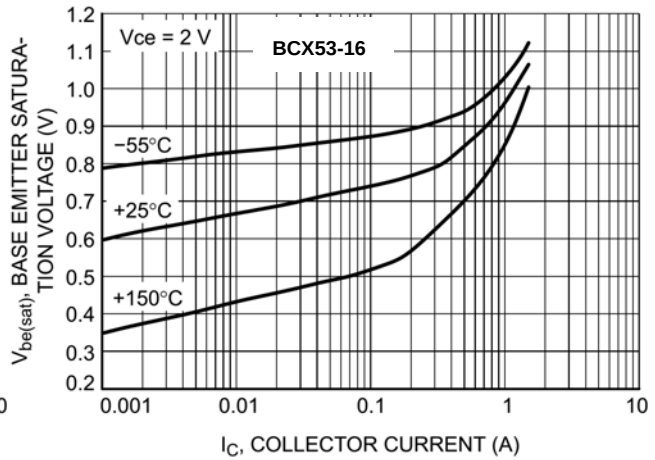


Figure 8. Base Emitter Turn-On Voltage vs. Collector Current

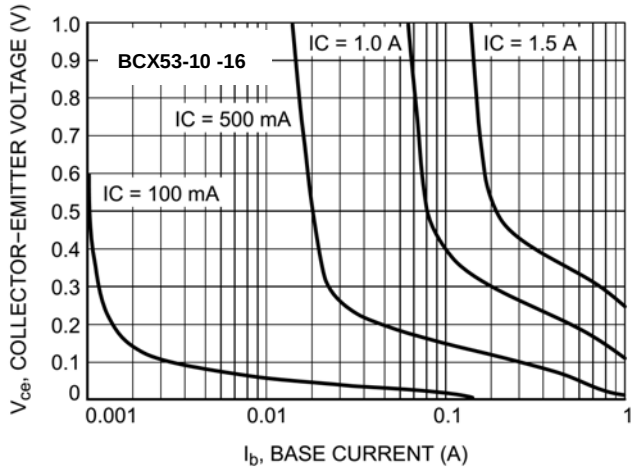


Figure 9. Saturation Region

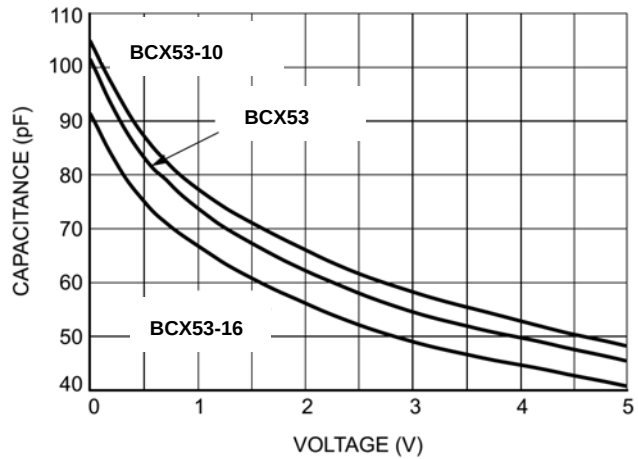


Figure 10. Input Capacitance

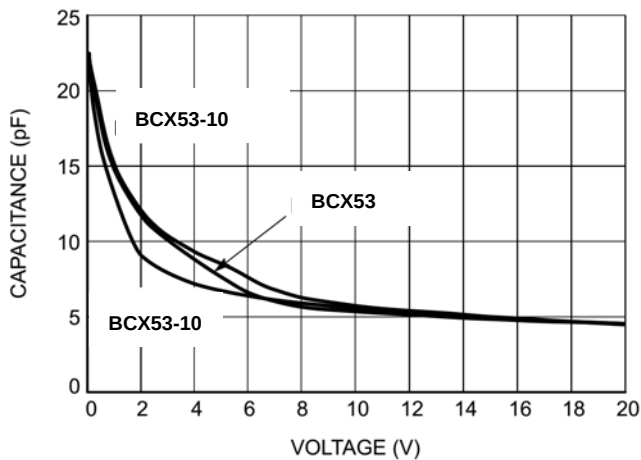


Figure 11. Output Capacitance

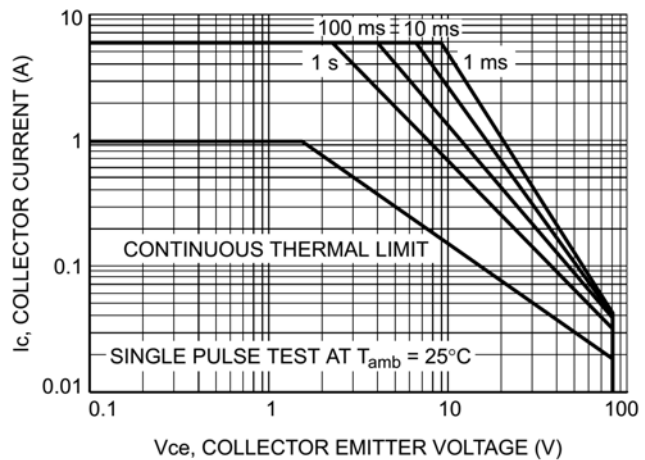
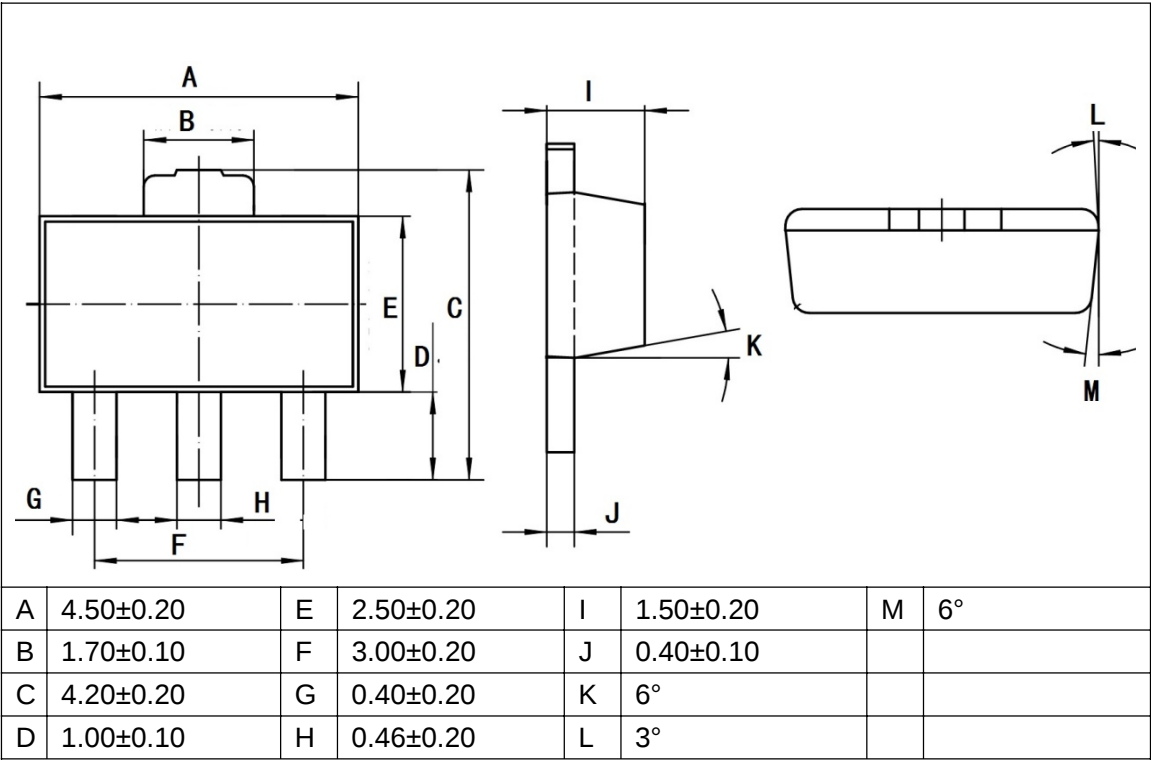
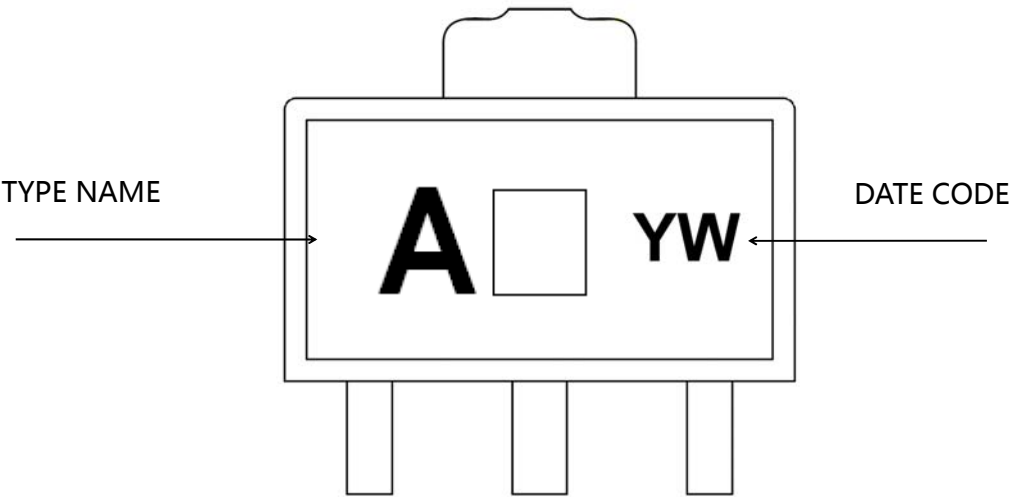


Figure 12. Standard Operating Area

■ 外形尺寸 DIMENSION



■ 打标 DEVICE MARKING



TYPE	FHBCX53-10-RE	FHBCX53-16-RE
h _{FE}	60~160	100~250
MARK	AK	AL

■ 包装信息 PACKAGE INFORMATION

材料名称 Material Name	颜色 Color	尺寸 Size	数量 Quantity	备注 Note
卷盘 Reel	蓝色 Blue	7 " *12mm	1K/Reel	
内盒 Inner Case	黄色 Yellow	210*210*210mm	10K/盒 (10 盘/盒) 10K/Case(10 Reel/ Case)	
外箱 Outer Box	黄色 Yellow	440*440*230mm	40K/箱 (4 盒/箱) 40K/Box (4 Case/Box)	
标签 Label	白色 White	68*40mm	——	贴卷盘、内盒、外箱 Label on reel、inner case、outer box