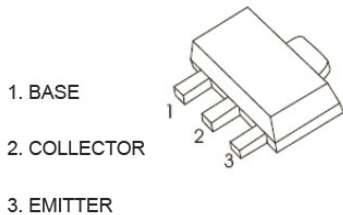


**SOT-89-3L**

**SOT-89-3L 贴片塑封三极管**

**SOT-89-3L Plastic-Encapsulate Transistors**



- 1. BASE
- 2. COLLECTOR
- 3. EMITTER

MARKING: BCX51:AA, BCX51-10:AC, BCX51-16:AD  
 BCX52:AE, BCX52-10:AG, BCX52-16:AM  
 BCX53:A H, BCX53-10:AK, BCX53-16:AL

**特征 Features**

- Complementary to BCX54,BCX55,BCX56;
- Medium Power General Purposes;
- Driver Stages of Audio Amplifiers.

**机械数据 Mechanical Data**

- SOT-89-3L Small Outline Plastic Package
- Epoxy UL: 94V-0
- Mounting Position: Any

极限值和温度特性(TA = 25°C 除非另有规定)

**Maximum Ratings & Thermal Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified.)

参数 Parameters	符号 Symbol	TYPE	数值 Value	单位 Unit
Collector-Base Voltage	V <sub>CB0</sub>	BCX51 BCX52 BCX53	-45 -60 -100	V
Collector-Emitter Voltage	V <sub>CEO</sub>	BCX51 BCX52 BCX53	-45 -60 -80	V
Emitter -Base Voltage	V <sub>EBO</sub>		-5	V
Collector Current-Continuous	I <sub>c</sub>		-1.0	A
Collector Power Dissipation	P <sub>c</sub>		500	mW
Junction Temperature	T <sub>j</sub>		150	°C
Storage Temperature	T <sub>stg</sub>		-55-+150	°C
Thermal resistance From junction to ambient	R <sub>θJA</sub>		250	°C/W

电特性 (TA = 25°C 除非另有规定)

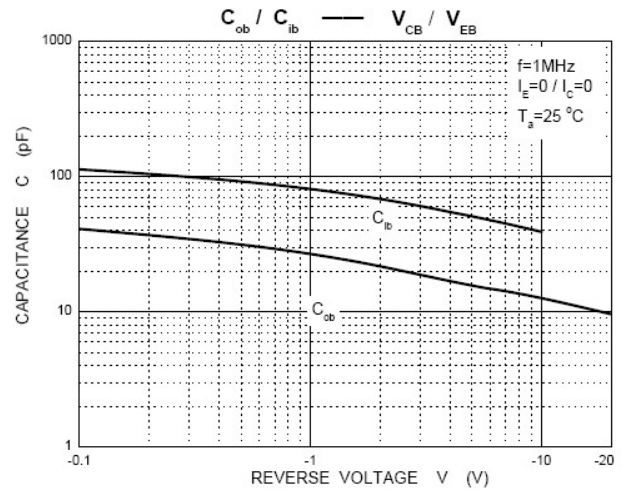
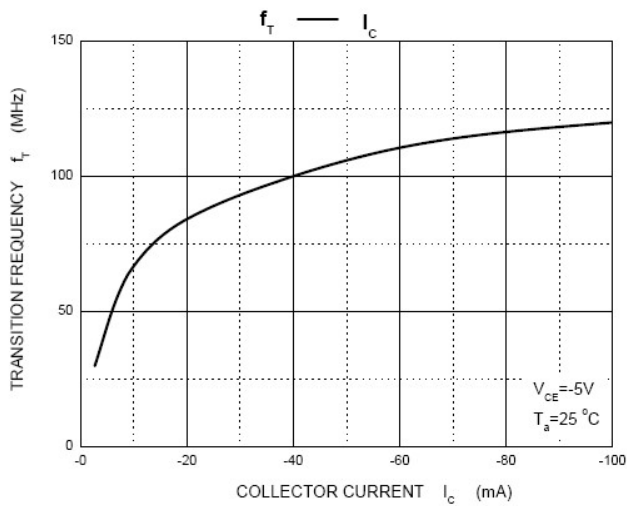
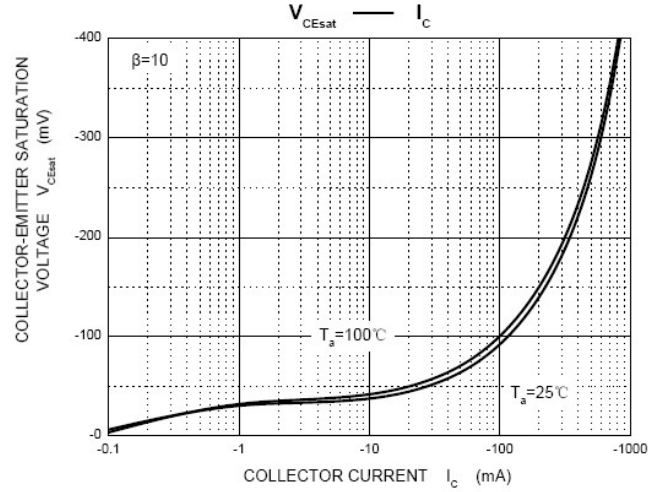
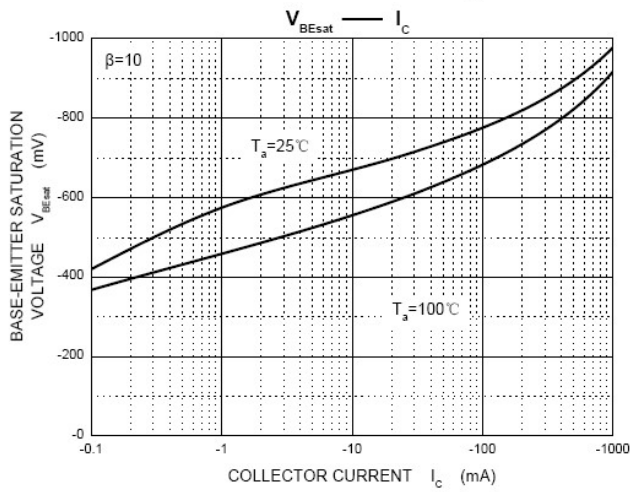
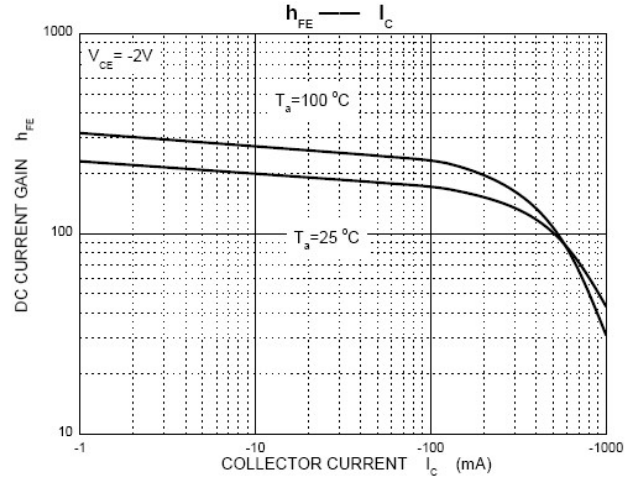
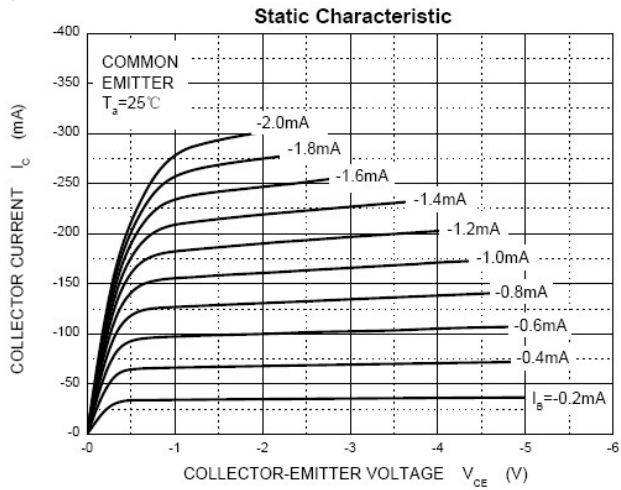
**Electrical Characteristics** (Ratings at 25°C ambient temperature unless otherwise specified.)

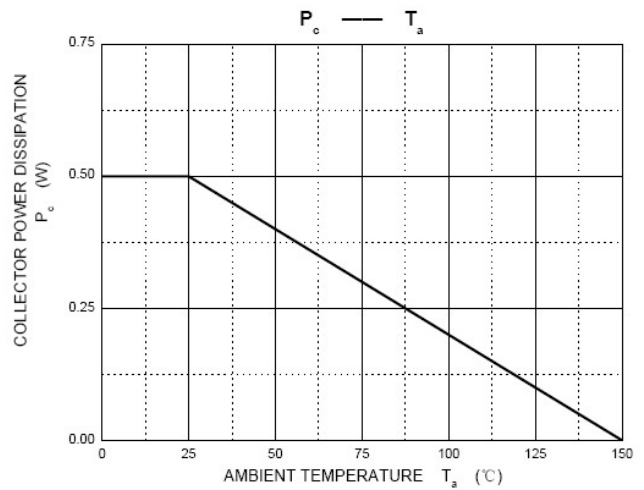
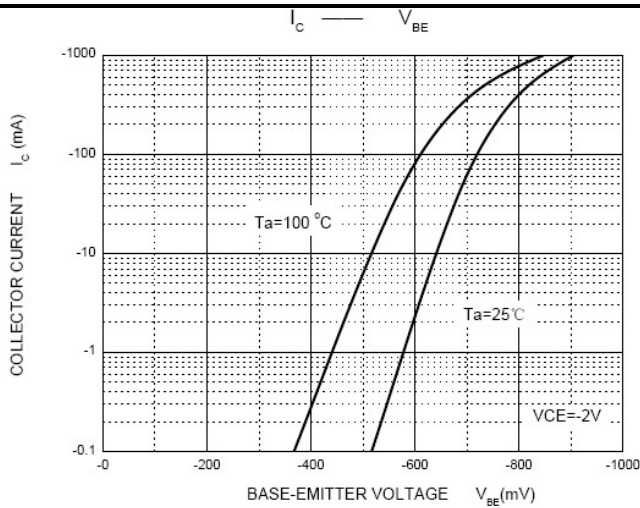
参数 Parameter	符号 Symbols	测试条件 Test Condition	界限 Limits			单位 Unit
			Min	Typ	Max	
Collector-base breakdown voltage	V(BR)CBO	I <sub>C</sub> =-100uA, I <sub>E</sub> =0	BCX51 BCX52 BCX53	-45 -60 -100		V
Collector-emitter breakdown voltage	V(BR)CEO	I <sub>C</sub> =-10mA, I <sub>B</sub> =0	BCX51 BCX52 BCX53	-45 -60 -80		V
Emitter-base breakdown voltage	V(BR)EBO	I <sub>E</sub> =-100uA, I <sub>C</sub> =0		-5		V
Collector cut-off current	I <sub>CBO</sub>	V <sub>CB</sub> =-30V, I <sub>E</sub> =0			-100	nA
Emitter cut-off current	I <sub>EBO</sub>	V <sub>EB</sub> =-5V, I <sub>C</sub> =0			-100	nA
DC current gain	h <sub>FE</sub> (1)	V <sub>CE</sub> =-2V, I <sub>C</sub> =-5mA		63		
	h <sub>FE</sub> (2)	V <sub>CE</sub> =-2V, I <sub>C</sub> =-150mA		63	250	
	h <sub>FE</sub> (3)	V <sub>CE</sub> =-2V, I <sub>C</sub> =-500mA		25		
Collector-emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> =-500mA, I <sub>B</sub> =-50mA			-0.5	V
Base -emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> =-2V, I <sub>C</sub> =-500mA			-1.0	V
Transition frequency	f <sub>t</sub>	V <sub>CE</sub> =-5V, I <sub>C</sub> =-10mA, f=100MHz		50		MHz

**CLASSIFICATION OF h<sub>FE</sub>(2)**

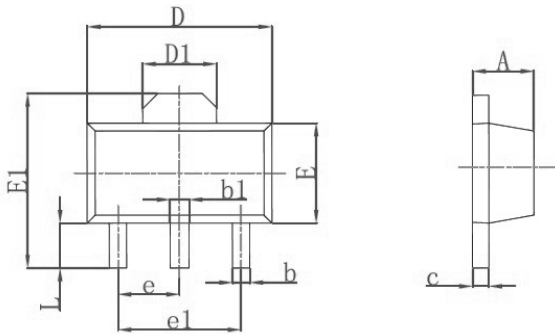
RANK	BCX51 BCX52 BCX53	BCX51-10 BCX52-10 BCX53-10	BCX51-16 BCX52-16 BCX53-16
RANGE	63-250	63-160	100-250

Typical characteristics





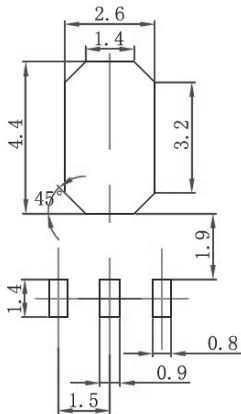
## SOT-89-3L PACKAGE OUTLINE Plastic surface mounted package



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047

焊盘设计参考 Precautions: PCB Design

Recommended land dimensions for SOT-89-3L diode. Electrode patterns for PCBs



Note:

1. Controlling dimension: in millimeters.
2. General tolerance:  $\pm 0.05\text{mm}$ .
3. The pad layout is for reference purposes only.

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