



SOT-89-3L Plastic-Encapsulate Transistors

BCX51,BCX52,BCX53 TRANSISTOR (PNP)

FEATURES

- NPN Complements to BCX54,BCX55,BCX56
- Low Voltage
- High Current

APPLICATIONS

- Medium Power General Purposes
- Driver Stages of Audio Amplifiers

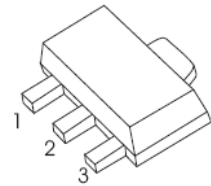
MARKING:BCX51:AA, BCX51-10:AC, BCX51-16:AD
BCX52:AE, BCX52-10:AG, BCX52-16:AM
BCX53:A H, BCX53-10:AK, BCX53-16:AL

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit	
V_{CBO}	Collector-Base Voltage	BCX51	-45	V
		BCX52	-60	
		BCX53	-100	
V_{CEO}	Collector-Emitter Voltage	BCX51	-45	V
		BCX52	-60	
		BCX53	-80	
V_{EBO}	Emitter-Base Voltage	-5	V	
I_C	Collector Current	-1	A	
P_C	Collector Power Dissipation	500	mW	
R_{JA}	Thermal Resistance From Junction To Ambient	250	$^{\circ}\text{C}/\text{W}$	
T_j	Junction Temperature	150	$^{\circ}\text{C}$	
T_{stg}	Storage Temperature	-55~+150	$^{\circ}\text{C}$	

SOT-89-3L

1. BASE
2. COLLECTOR
3. EMITTER

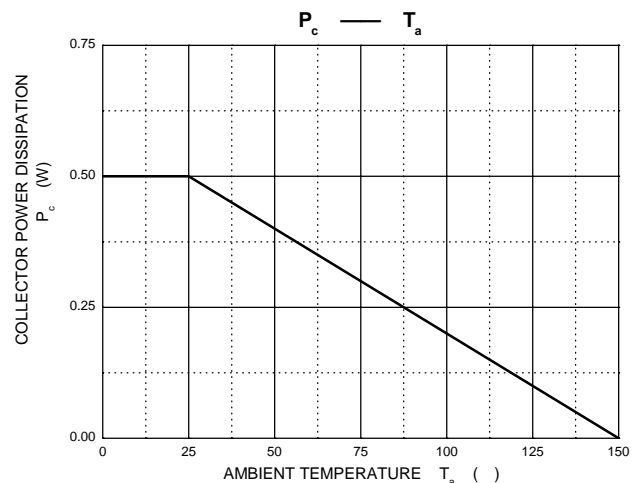
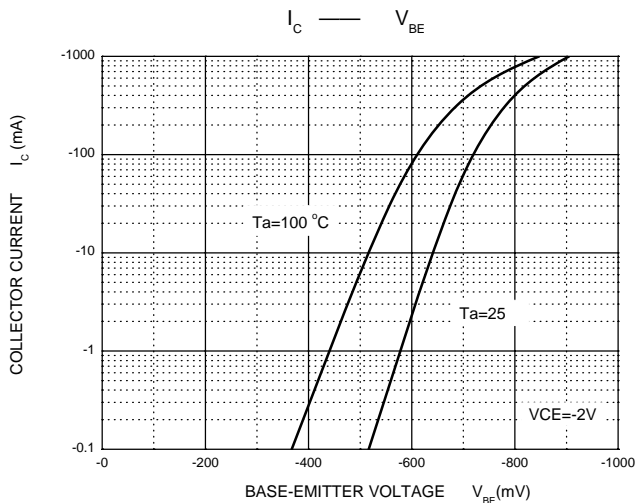
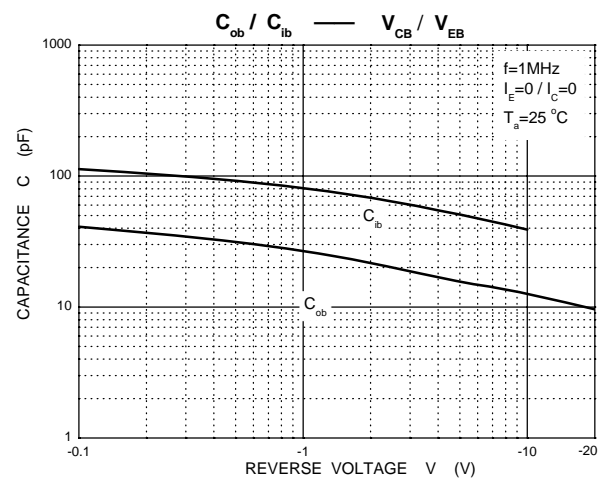
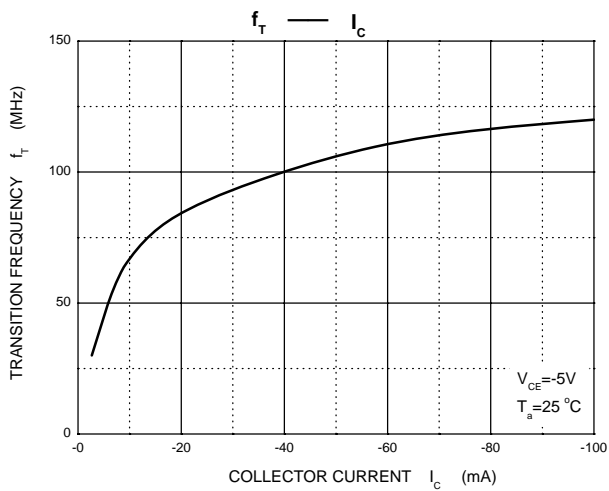
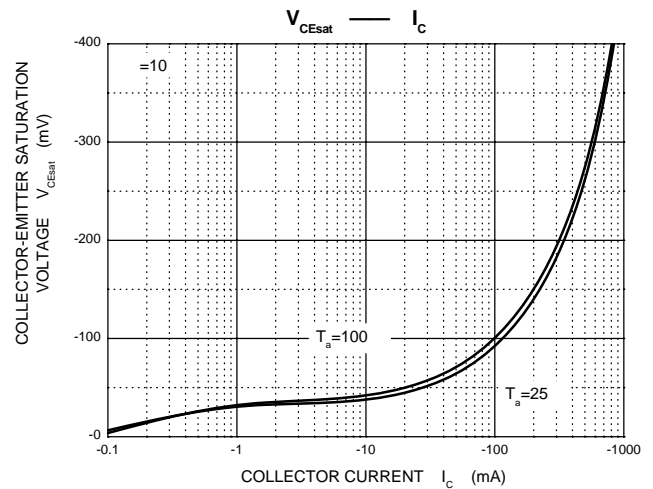
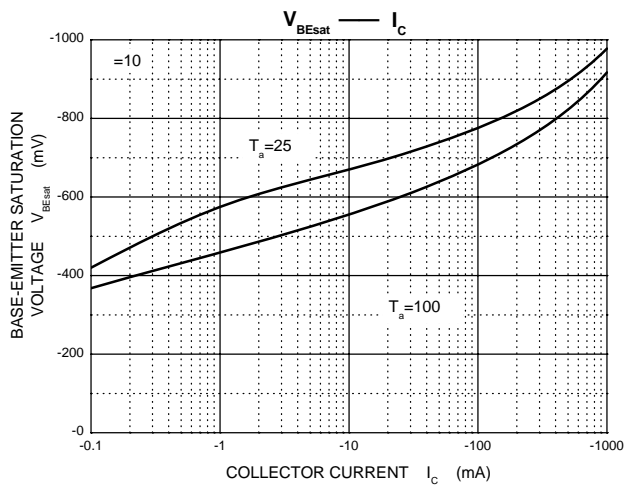
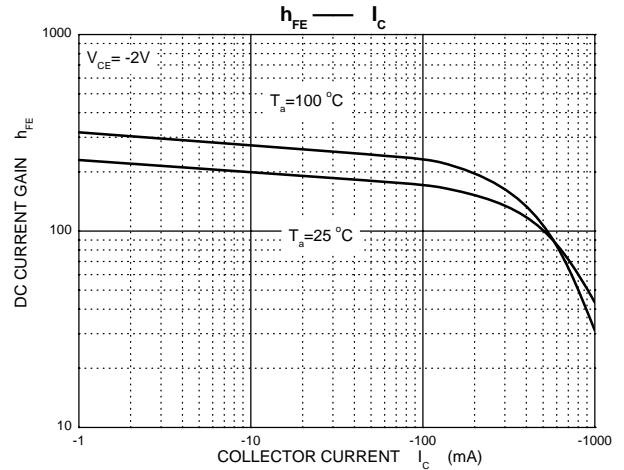
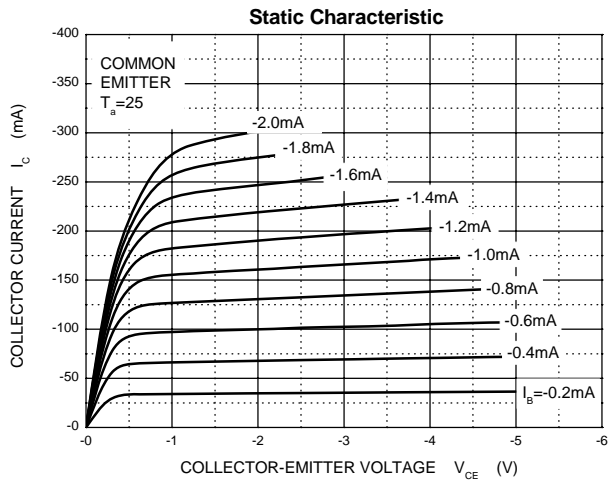


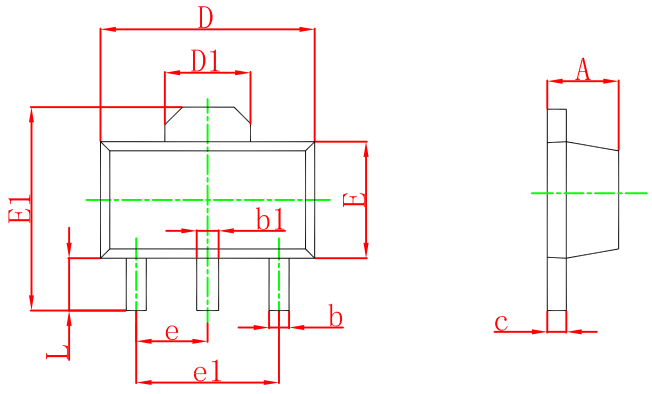
ELECTRICAL CHARACTERISTICS (T_a=25°C unless otherwise specified)

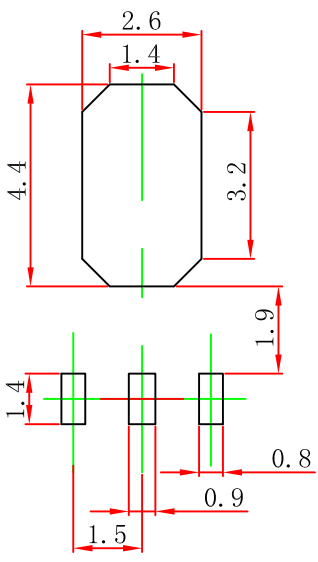
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =-100μA, I _E =0	BCX51	-45		V
			BCX52	-60		
			BCX53	-100		
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C =-1 mA, I _B =0	BCX51	-45		V
			BCX52	-60		
			BCX53	-80		
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E =-100μA, I _C =0	-5			V
Collector cut-off current	I _{CBO}	V _{CB} =-30V, I _E =0			-0.1	μA
Emitter cut-off current	I _{EBO}	V _{EB} =-5V, I _C =0			-0.1	μA
DC current gain	h _{FE(1)}	V _{CE} =-2V, I _C =-5mA	63			
	h _{FE(2)}	V _{CE} =-2V, I _C =-150mA	63		250	
	h _{FE(3)}	V _{CE} =-2V, I _C =-0.5A	40			
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =-0.5A, I _B =-50mA			-0.5	V
Base -emitter voltage	V _{BE}	V _{CE} =-2V, I _C =-0.5A			-1	V
Transition frequency	f _T	V _{CE} =-5V, I _C =-10mA, f=100MHz		50		MHz

CLASSIFICATION OF h_{FE(2)}

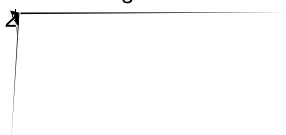
RANK	BCX51 BCX52 BCX53	BCX51-10 BCX52-10 BCX53-10	BCX51-16 BCX52-16 BCX53-16
RANGE	63 250	63 160	100 250







Note:
1. Controlling dimension: in millimeters.



SOT-89-3L Embossed Carrier Tape

Packaging Description:

SOT-89-3L parts are shipped in tape. The carrier tape is made from a dissipative (carbon filled) polycarbonate resin. The cover tape is a multilayer film (Heat Activated Adhesive in nature) primarily composed of polyester film, adhesive layer, sealant, and anti-static layer.

Dimensions are in millimeter										
Pkg type	A	B	C	d	E	F	P0	P	P1	W
SOT-89-3L	4.85	4.45	1.85	Ø1.50	1.75	5.50	4.00	8.00	2.00	12.00

SOT-89-3L Tape Leader and Trailer

SOT-89-3L Reel

REEL	Reel Size	Box	Box Size(mm)	Carton	Carton Size(mm)	G.W.(kg)
1000 pcs	7 inch	10,000 pcs	203×203×195	40,000 pcs	438×438×220	