

RoHS Compliant Product  
A suffix of "-C" specifies halogen & lead-free

## FEATURES

- Low Voltage
- High Current

## CLASSIFICATION OF $h_{FE}$

Product-Rank	BCX56-10	BCX56-16
Range	63~160	100~250
Marking	BK	BL

## PACKAGE INFORMATION

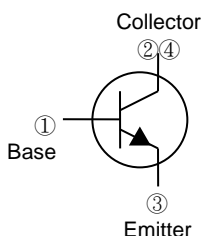
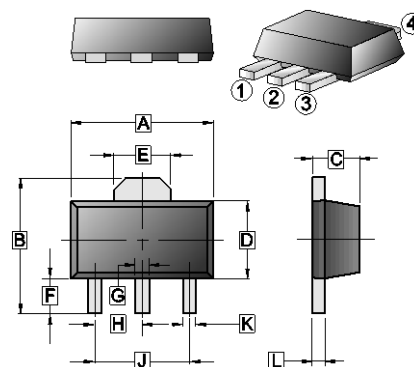
Package	MPQ	Reel Size
SOT-89	1K	7 inch

## ORDER INFORMATION

Part Number	Type
BCX56	Lead (Pb)-free
BCX56-□-C	Lead (Pb)-free and Halogen-free

\*□= $h_{FE}$  Rank

## SOT-89



REF.	Millimeter		REF.	Millimeter	
	Min.	Max.		Min.	Max.
A	4.40	4.60	G	0.40	0.58
B	3.94	4.25	H	1.50 TYP	
C	1.40	1.60	J	3.00 TYP	
D	2.25	2.60	K	0.32	0.52
E	1.55 TYP.		L	0.35	0.44
F	0.89	1.20			

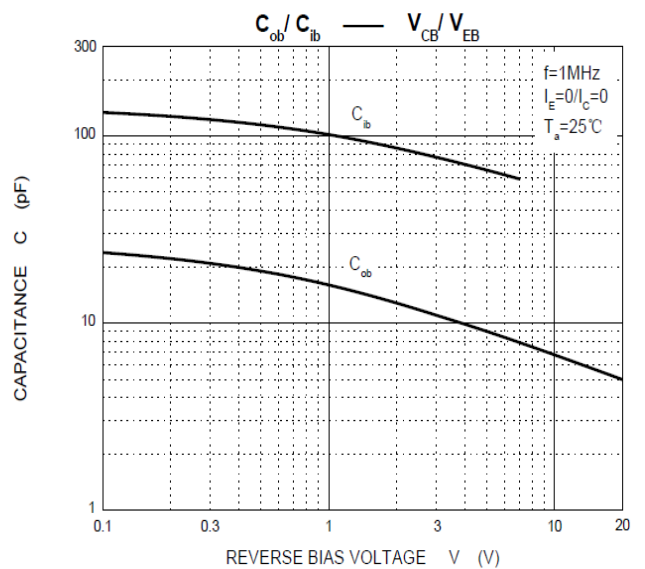
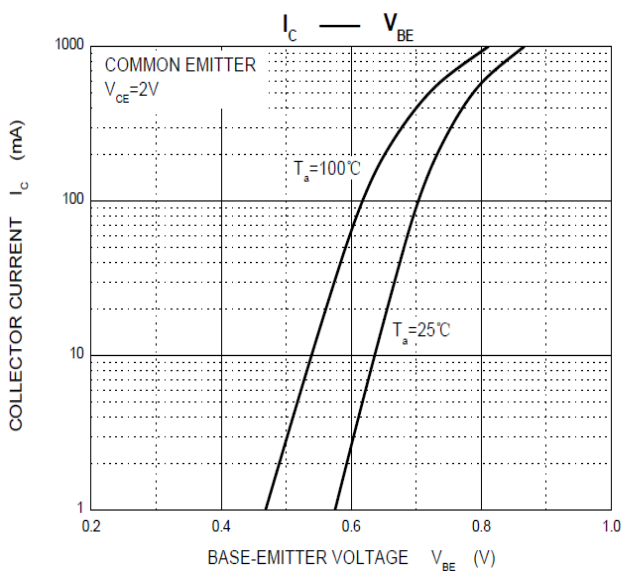
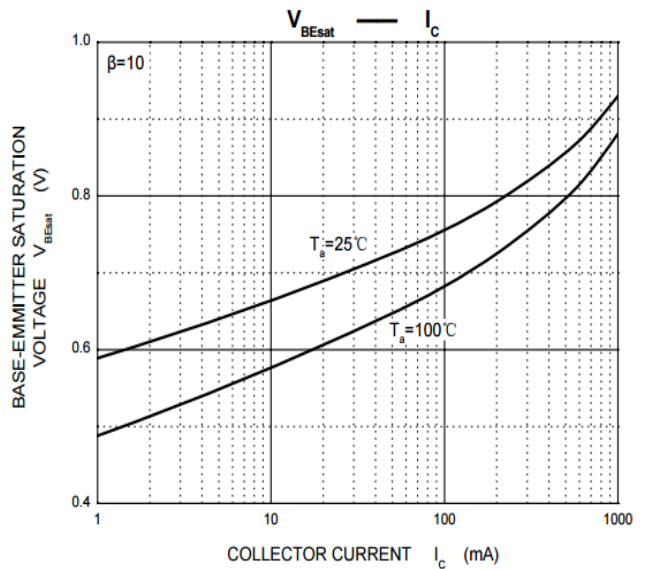
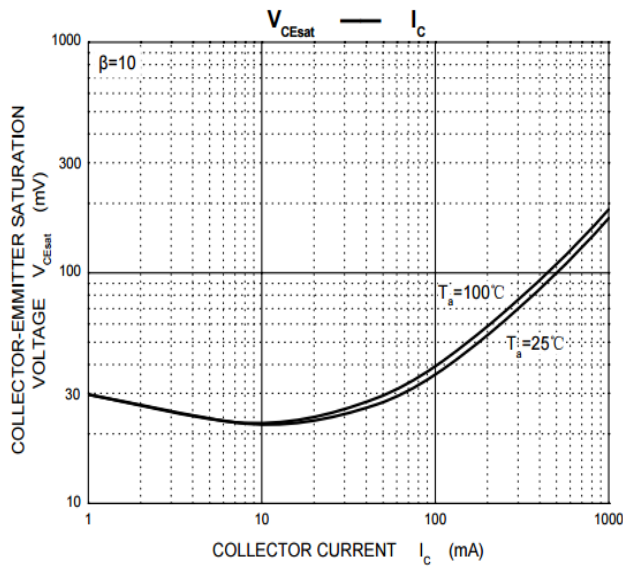
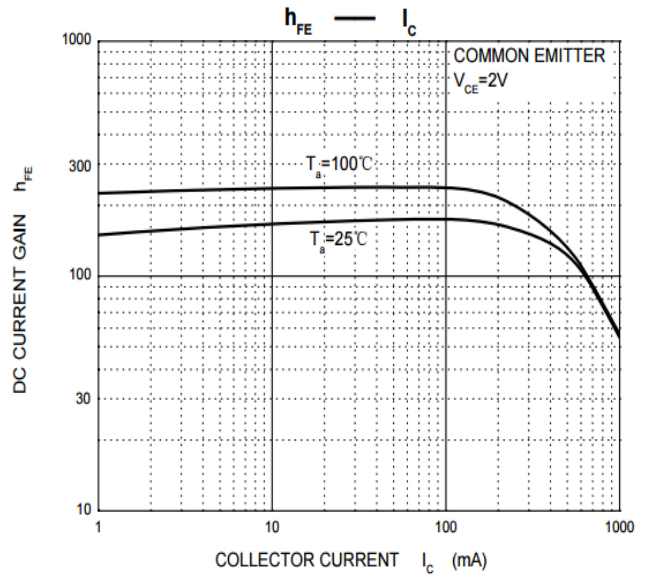
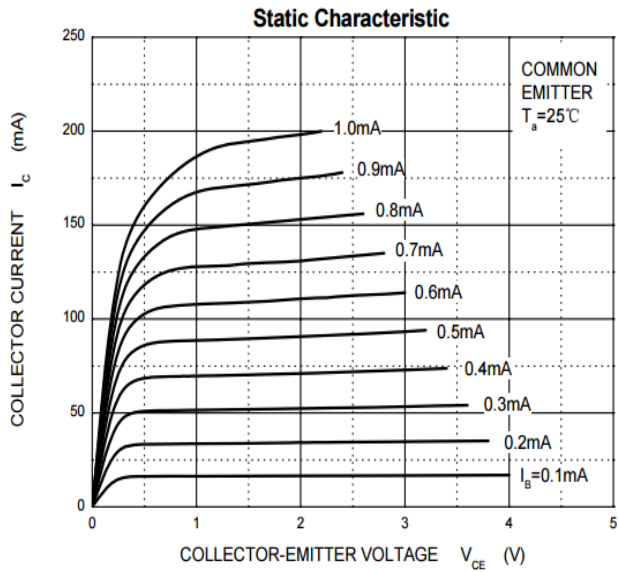
## ABSOLUTE MAXIMUM RATINGS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Collector-Base Voltage	$V_{CBO}$	100	V
Collector-Emitter Voltage	$V_{CEO}$	80	
Emitter-Base Voltage	$V_{EBO}$	5	
Collector Current	$I_C$	1	A
Base Current	$I_B$	0.1	A
Peak Base Current (tp<1ms)	$I_{BM}$	0.2	A
Collector Power Dissipation	$P_C$	500	mW
Thermal Resistance from Junction-Ambient	$R_{\theta JA}$	250	$^\circ\text{C/W}$
Junction & Storage Temperature Range	$T_J, T_{STG}$	150, -55~150	$^\circ\text{C}$

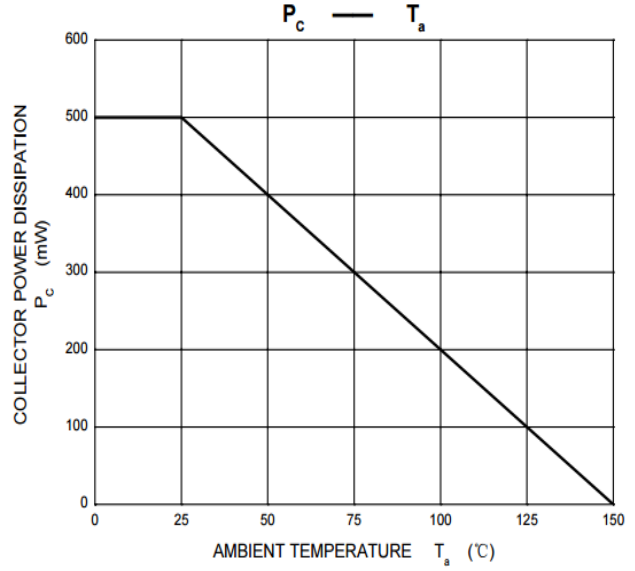
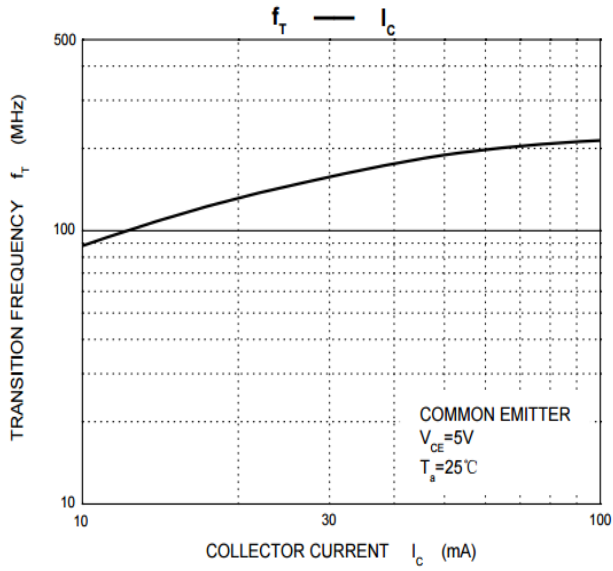
## ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	100	-	-	V	$I_C=100\mu\text{A}, I_E=0$
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	80	-	-		$I_C=10\text{mA}, I_B=0$
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	5	-	-		$I_E=100\mu\text{A}, I_C=0$
Collector Cut-Off Current	$I_{CBO}$	-	-	0.1	$\mu\text{A}$	$V_{CB}=30\text{V}, I_E=0$
Emitter Cut-Off Current	$I_{EBO}$	-	-	0.1		$V_{EB}=5\text{V}, I_C=0$
DC Current Gain	$h_{FE}$	40	-	-		$V_{CE}=2\text{V}, I_C=5\text{mA}$
		63	-	250		$V_{CE}=2\text{V}, I_C=150\text{mA}$
		25	-	-		$V_{CE}=2\text{V}, I_C=0.5\text{A}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	-	-	0.5	V	$I_C=0.5\text{A}, I_B=50\text{mA}$
Base-Emitter Voltage	$V_{BE(on)}$	-	-	1	V	$V_{CE}=2\text{V}, I_C=0.5\text{A}$
Transition Frequency	$f_T$	-	130	-	MHZ	$V_{CE}=5\text{V}, I_C=10\text{mA}, f=100\text{MHz}$

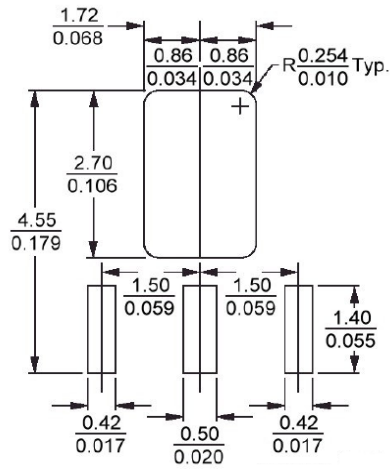
**TYPICAL CHARACTERISTIC CURVES**



**TYPICAL CHARACTERISTIC CURVES**



**Mounting Pad Layout**



\*Dimensions in millimeters