

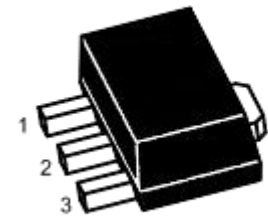
# BCX56SQ-10/16

## NPN Transistor

### Features

- ◆ For AF driver and output stages
- ◆ High collector current
- ◆ Low collector-emitter saturation voltage

SOT-89



1.Base 2.Collector 3.Emitter

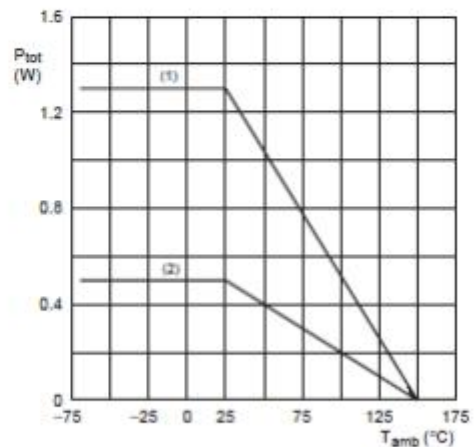
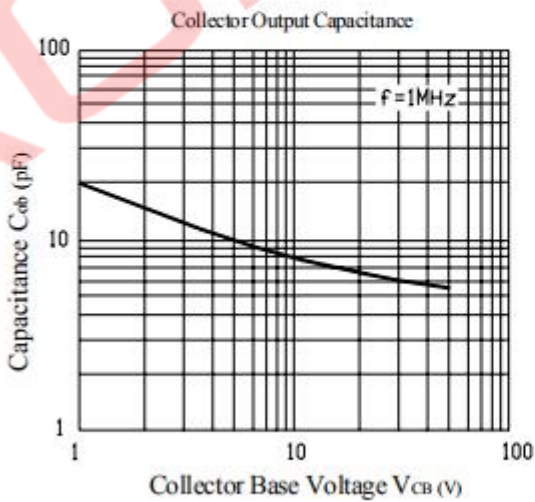
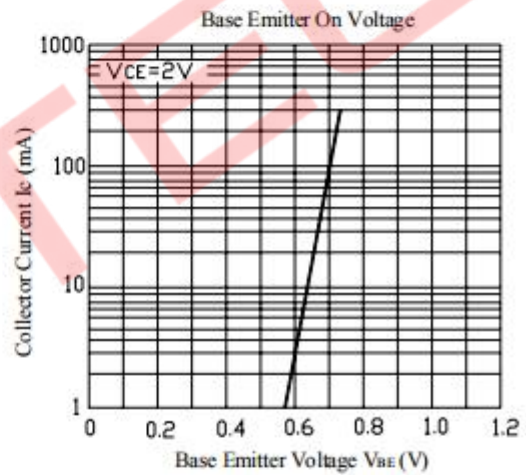
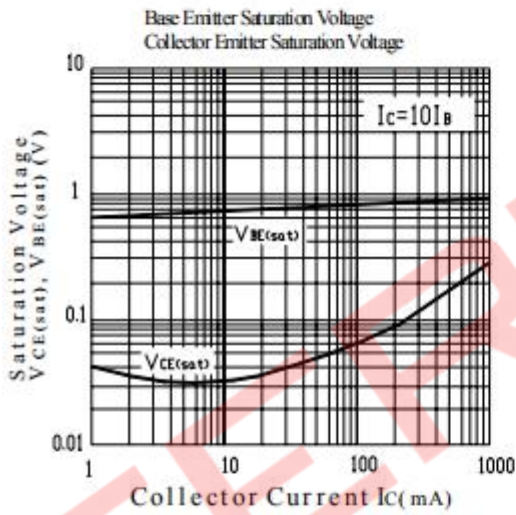
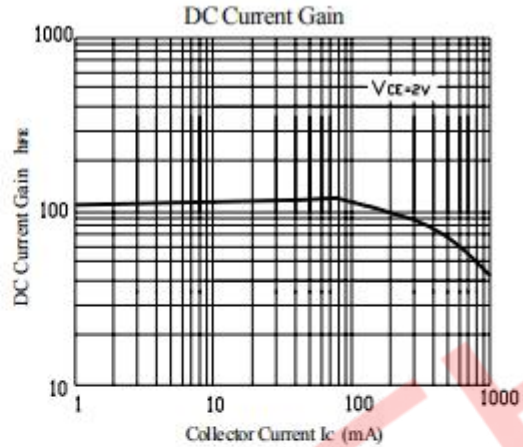
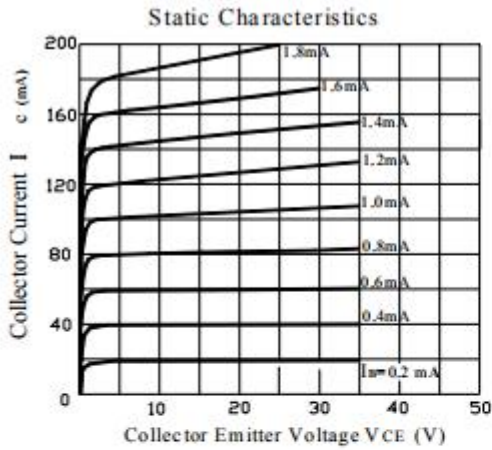
### Absolute maximum ratings (Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector Base Voltage	$V_{CBO}$	100	V
Collector Emitter Voltage	$V_{CEO}$	80	V
Emitter Base Voltage	$V_{EBO}$	5	V
Collector Current	$I_C$	1	A
Peak Collector Current	$I_{CM}$	1.5	A
Total Power Dissipation	$P_{tot}$	0.5 1.3	W
Junction Temperature	$T_J$	150	°C
Storage Temperature Range	$T_{STG}$	-65 to 150	°C

### Electrical characteristics (TA=25°C, unless otherwise noted)

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE}=2V, I_C=5mA$	$H_{FE}$	40	-	-	-
at $V_{CE}=2V, I_C=150mA$		63	-	160	-
at $V_{CE}=2V, I_C=500mA$		100	-	250	-
		25	-	-	-
Collector Base Cutoff Current at $V_{CB}=30V$	$I_{CBO}$	-	-	100	nA
Emitter Base Cutoff Current at $V_{EB}=5V$	$I_{EBO}$	-	-	100	nA
Collector Base Breakdown Voltage at $I_C=100\mu A$	$V_{(BR)CBO}$	100	-	-	V
Collector Emitter Breakdown voltage at $I_C=1mA$	$V_{(BR)CEO}$	80	-	-	V
Emitter Base Breakdown Voltage at $I_E=100\mu A$	$V_{(BR)EBO}$	5	-	-	V
Collector Emitter Saturation Voltage at $I_C=0.5A, I_B=50mA$	$V_{CE(sat)}$	-	-	0.5	V
Base Emitter Voltage at $V_{CE}=2V, I_C=0.5A$	$V_{BE(sat)}$	-	-	1	V
Transition Frequency at $V_{CE}=5V, I_C=50mA, f=100MHz$	$F_T$	-	100	-	MHz
Collector Capacitance at $V_{CB}=10V, f=1MHz$	$C_C$	-	6	-	pf

Typical Characteristics curves



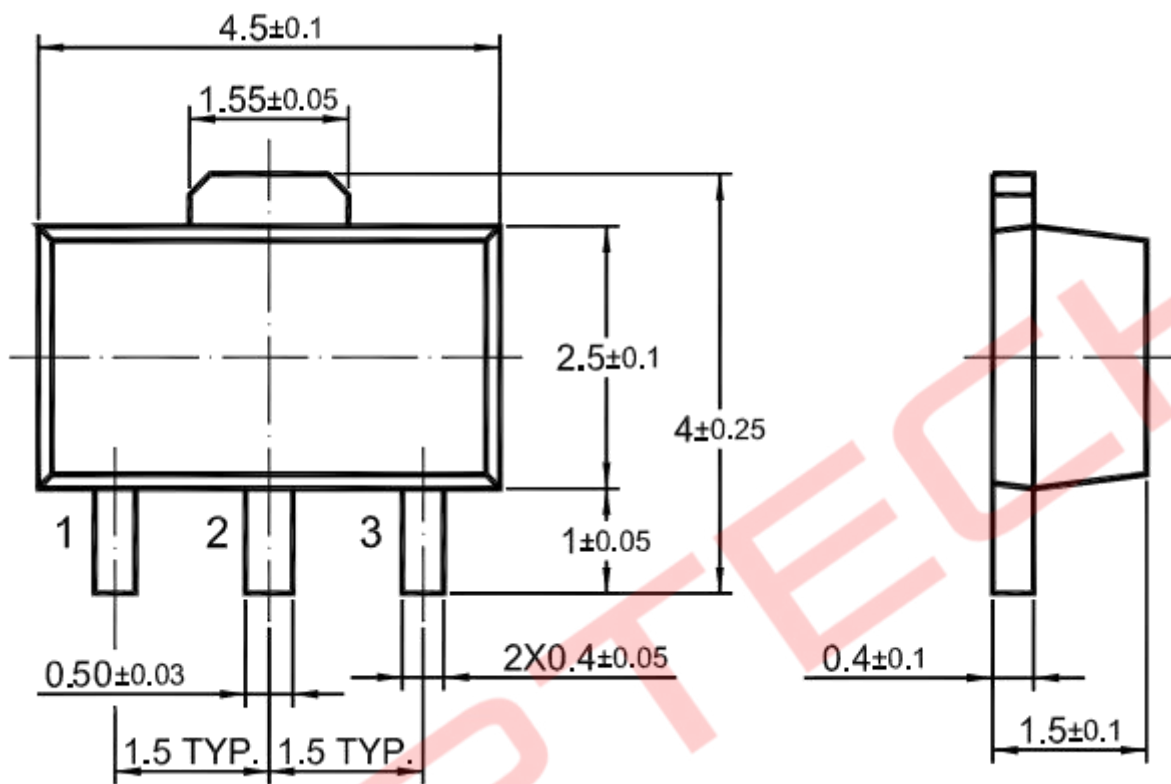
(1) FR4 PCB, mounting pad for collector 8 cm<sup>2</sup>  
 (2) FR4 PCB, standard footprint

Power derating curves

# BCX56SQ-10/16

## Package Outline

SOT-89



Device	Package	Reel Dimension(inch)	Shipping
BCX56SQ	SOT-89	13	3,000