



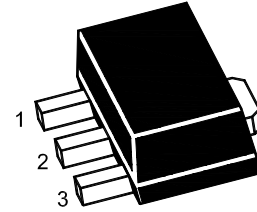
BCX56SQ

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 specified)

Parameter	Symbol	Value	Units
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⁾ 1.3 ⁽²⁾	W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{stg}	- 65 to + 150	°C

Note :1.Device mounted on an FR4 Printed-Circuit Board(PCB), single-sided copper, tin-plated and standard footprint.

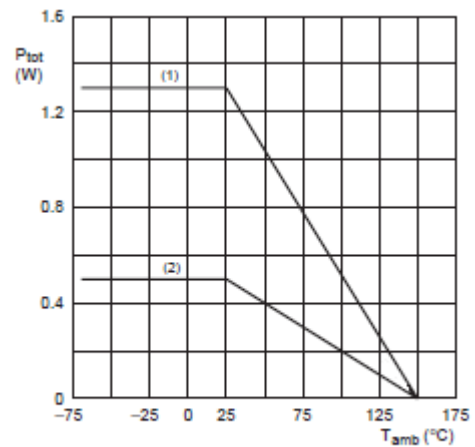
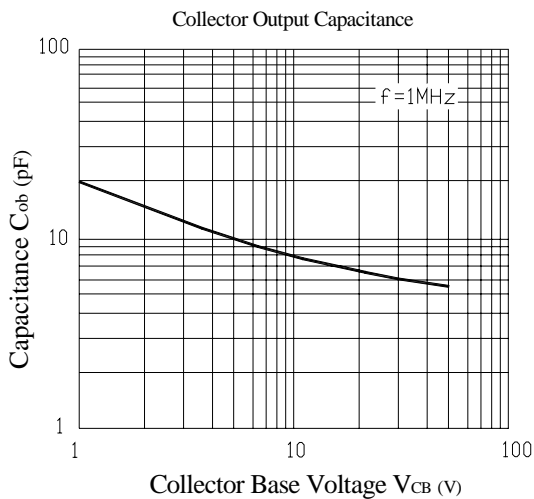
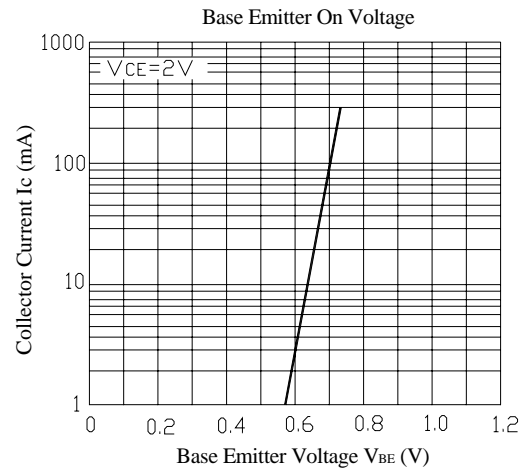
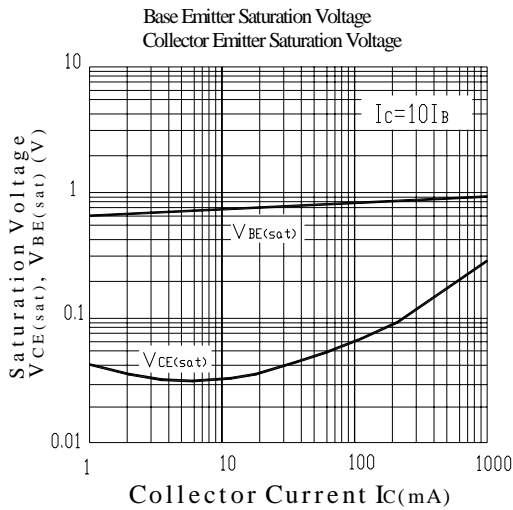
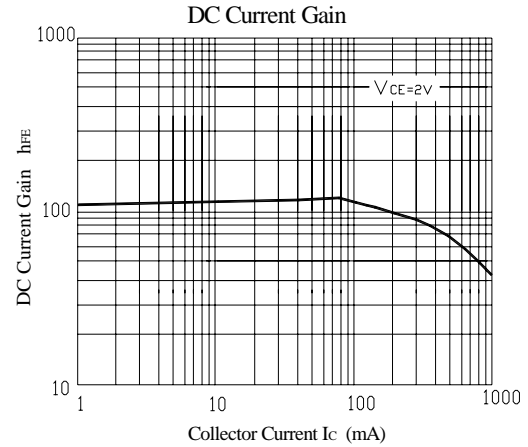
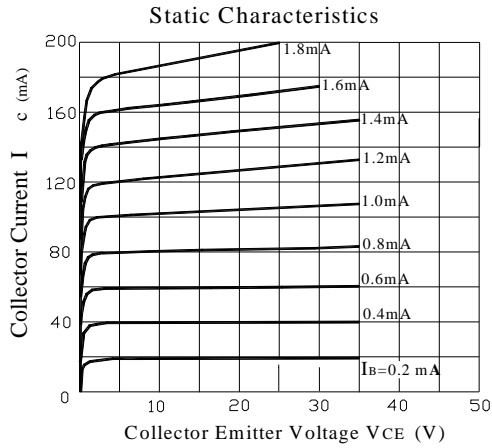
2. Device mounted on an FR4 PCB, single-sided copper, tin-plated, mounting pad for collector 6 cm²

Electrical Characteristics (Ta=25°C unless otherwise specified)

Parameter	Symbol	Min.	Typ.	Max.	Units
DC Current Gain					
at $V_{CE} = 2\text{ V}$, $I_C = 5\text{ mA}$	h_{FE}	40	-	-	-
at $V_{CE} = 2\text{ V}$, $I_C = 150\text{ mA}$	BCX56SQ-10 h_{FE}	63	-	160	-
	BCX56SQ-16 h_{FE}	100	-	250	-
at $V_{CE} = 2\text{ V}$, $I_C = 500\text{ mA}$	h_{FE}	25	-	-	-
Collector Base Cutoff Current at $V_{CB} = 30\text{ V}$	I_{CBO}	-	-	100	nA
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	I_{EBO}	-	-	100	nA
Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	100	-	-	V
Collector Emitter Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CEO}$	80	-	-	V
Emitter Base Breakdown Voltage at $I_E = 100\text{ }\mu\text{A}$	$V_{(BR)EBO}$	5	-	-	V
Collector Emitter Saturation Voltage at $I_C = 500\text{ mA}$, $I_B = 50\text{ mA}$	$V_{CE(sat)}$	-	-	0.5	V
Base Emitter Voltage at $V_{CE} = 2\text{ V}$, $I_C = 500\text{ mA}$	V_{BE}	-	-	1	V
Transition Frequency at $V_{CE} = 5\text{ V}$, $I_C = 50\text{ mA}$, $f = 100\text{ MHz}$	f_T	100	-	-	MHz
Collector Capacitance at $V_{CB} = 10\text{ V}$, $f = 1\text{ MHz}$	C_c	-	6	-	pF



Typical Characteristic Curves



Power derating curves





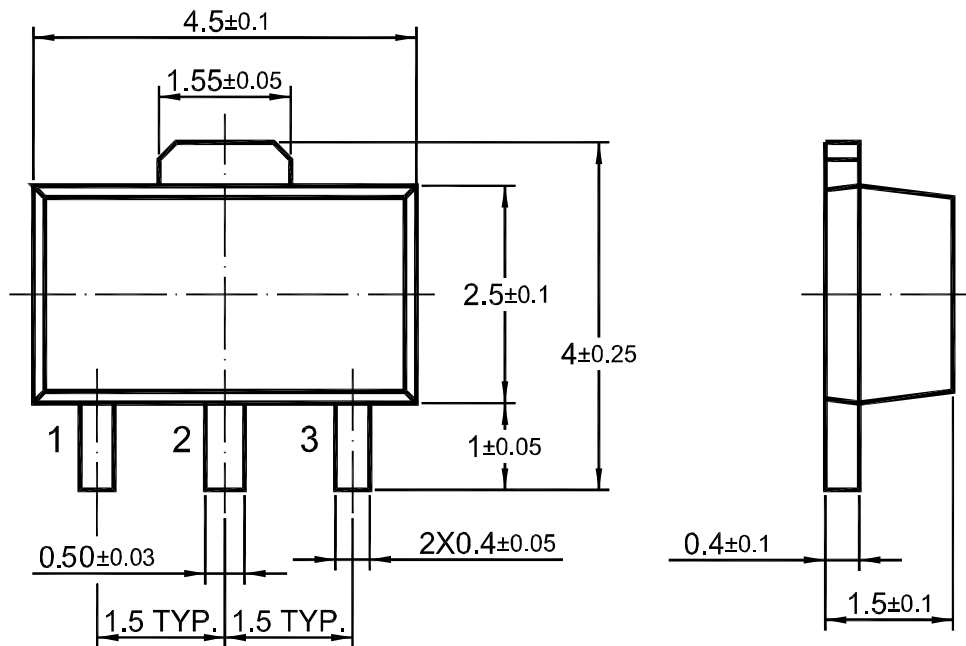
BCX56SQ

NPN Transistor

Package Outline

SOT-89

Dimensions in mm



Ordering information

Device	Package	Shipping
BCX56SQ	SOT-89	1000PCS/Reel&Tape