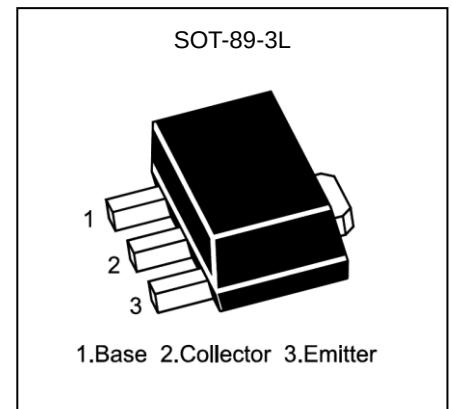




BCX56 Transistor(NPN)

Feature

- Low Voltage
- High Current



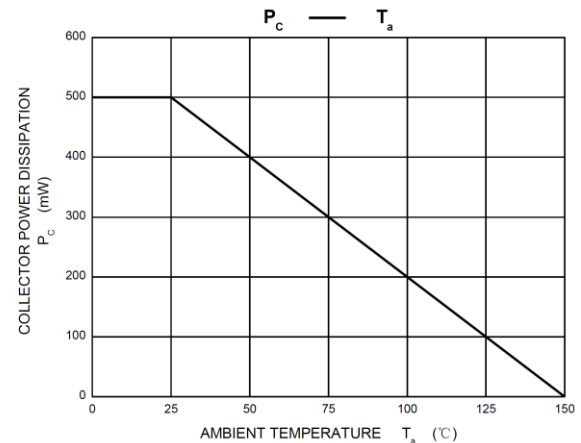
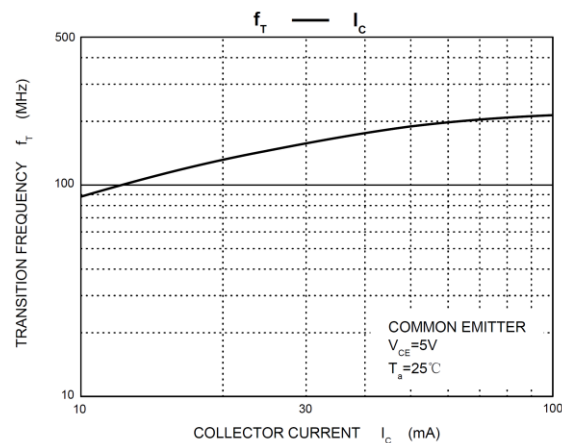
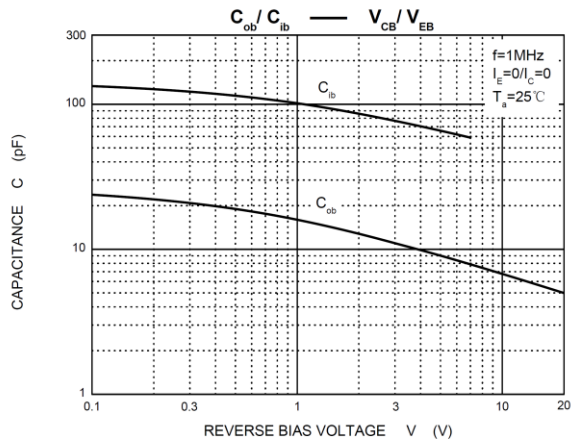
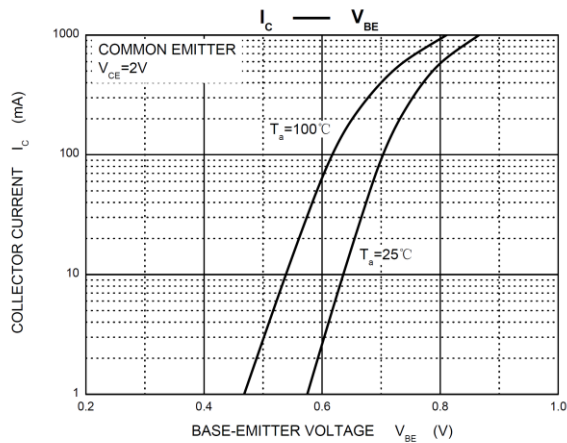
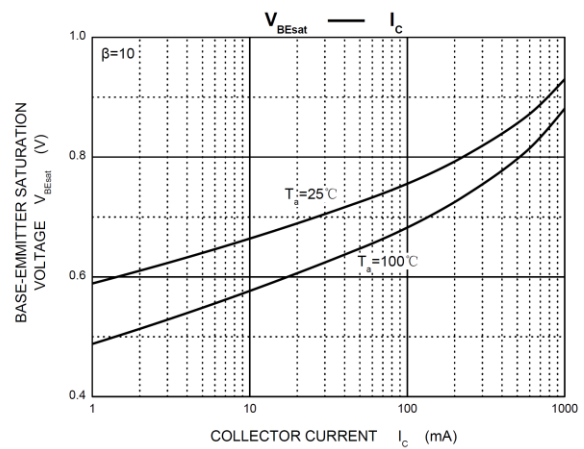
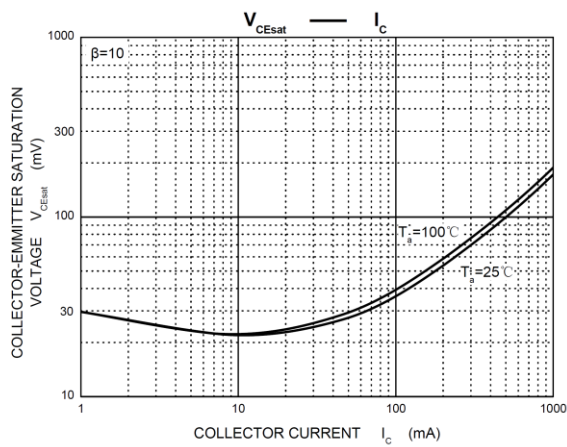
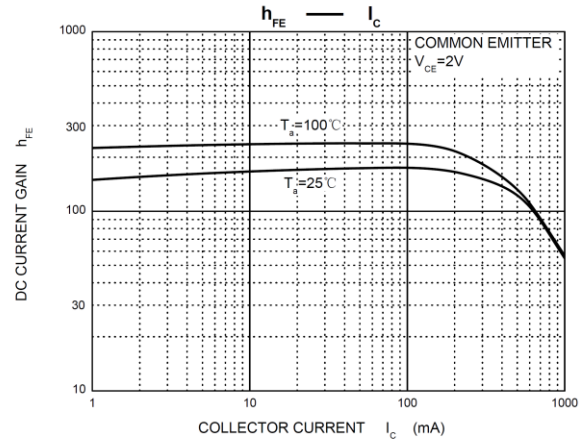
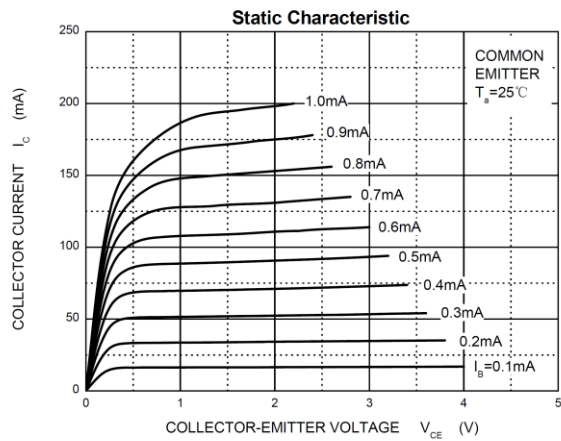
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

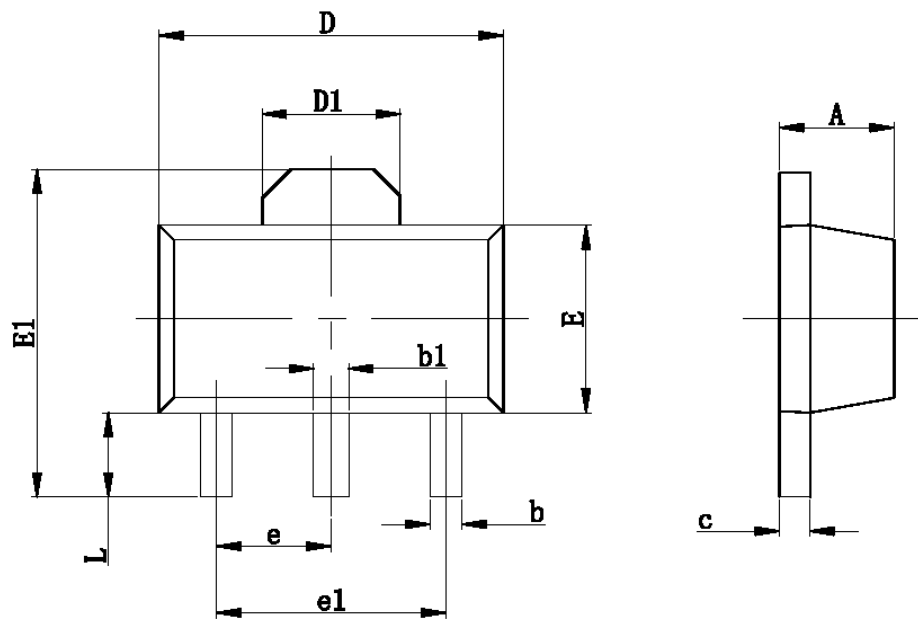
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CB0}	100	V
Collector-Emitter Voltage	V_{CE0}	80	V
Emitter-Base Voltage	V_{EB0}	5	V
Collector Current	I_C	1	A
Peak Collect Current	I_{CM}	1.5	A
Power Dissipation	P_d	0.5	W
Junction Temperature	T_J	150	$^{\circ}\text{C}$
Storage Temperature	T_{STG}	-55~ +150	$^{\circ}\text{C}$

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

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu\text{A}$, $I_E=0$	100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}$, $I_B=0$	80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu\text{A}$, $I_C=0$	5			V
Baes cut-off current	I_{CBO}	$V_{CB}=30\text{V}$, $I_E=0\text{V}$			100	nA
Emitter cut-off current	I_{EBO}	$V_{EB}=6\text{V}$, $I_C=0$			100	nA
DC current gain	h_{FE}	$V_{CE}=2\text{V}$, $I_C=5\text{mA}$	40			
		$V_{CE}=2\text{V}$, $I_C=150\text{mA}$ BCX56-10	63		160	
		$V_{CE}=2\text{V}$, $I_C=150\text{mA}$ BCX56-16	100		250	
		$V_{CE}=2\text{V}$, $I_C=500\text{mA}$	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}$, $I_B=50\text{mA}$			0.5	V
Base-emitter saturation voltage	V_{BE}	$I_C=500\text{mA}$, $V_{CE}=2\text{V}$			1.0	V
Transition frequency	f_T	$V_{CE}=5\text{V}$, $I_C=50\text{mA}$, $f=100\text{MHz}$	100			MHZ
Collector Capacitance	C_C	$V_{CB}=10\text{V}$, $f=1\text{MHz}$		6		pF

Typical Characteristics



SOT-89-3L Package Outline Dimensions


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	0.197
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	1.550REF		0.061REF	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500TYP		0.060TYP	
e1	3.000TYP		0.118TYP	
L	0.900	1.200	0.035	0.047