

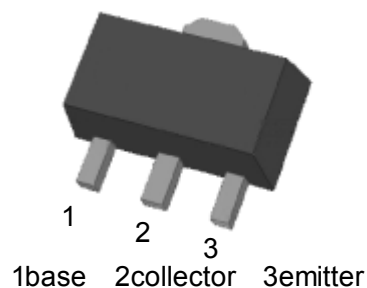
SOT-89 NPN medium power transistor

Feature

- High current (max. 1 A)
- Low voltage (max. 80 V).

APPLICATIONS

- Driver stages of audio and video amplifiers.



DESCRIPTION

- NPN medium power transistor in a SOT89 plastic
- package.

ABSOLUTE MAXIMUM RATINGS

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	V_{CEO}	80	Vdc
Collector-Base Voltage	V_{CBO}	100	Vdc
Emitter-Base Voltage	V_{EBO}	5	Vdc
Collector Current(DC)	I_C	1	Adc
Peak Collector Current	I_{CM}	1.5	Adc
Peak Base Current	I_{BM}	0.2	Adc
Collector Power Dissipation	P_C	1.30	W
Junction Temperature	T_j	150	°C
Storage Temperature Range	T_{stg}	-55~150	°C

Note:1. Device mounted on a printed-circuit board, single sided copper, tinplated, mounting pad for collector 6 cm².

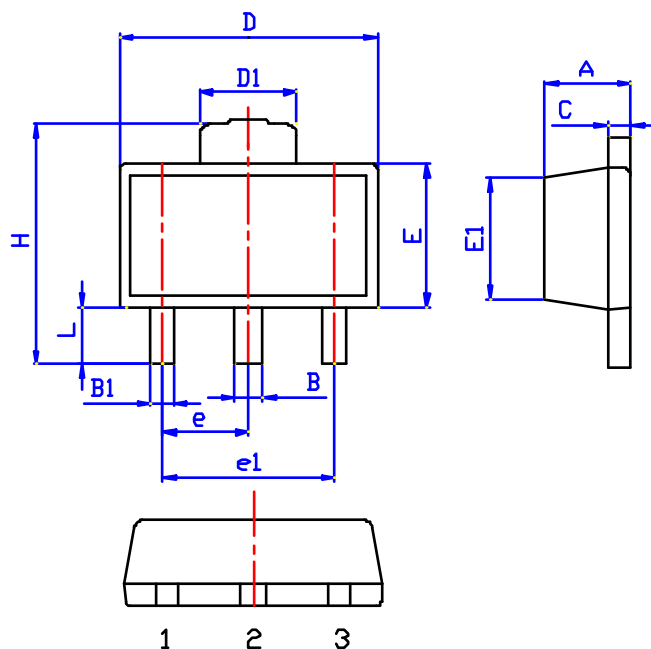
hFE CLASSIFICATION

TYPE	BCX56	BCX56-10	BCX56-16
MARKING	BH	BK	BL
hFE RANGE	63~250	63~160	100~250

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

Characteristic	Symbol	Test Condition	Min	Type	Max	Unit
Collector Cutoff Current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0$	-	-	100	nA
		$V_{CB}=30\text{V}, I_E=0, T_j=150^{\circ}\text{C}$	-	-	10	μA
Emitter Cutoff Current	I_{EBO}	$V_{EB}=5\text{V}, I_C=0$	-	-	100	nA
DC Current Gain	h_{FE}	$V_{CE}=2\text{V}, I_C=5\text{mA}$	63	-	-	-
		$V_{CE}=2\text{V}, I_C=150\text{mA}$	63	-	250	
		$V_{CE}=2\text{V}, I_C=500\text{mA}$	40	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$	-	-	0.5	V
Base-Emitter Voltage	V_{BE}	$I_C=500\text{mA}; V_{CE}=2\text{V}$	-	-	1	V
Transition Frequency	f_T	$I_C=10\text{mA}; V_{CE}=5\text{V}; f=100\text{MHz}$	-	130	-	MHz

SOT-89 PACKAGE OUTLINE DIMENSIONS



DIM	MILLIMETERS	
	MIN.	MAX.
A	1.40	1.60
B	0.46	0.56
B1	0.36	0.48
C	0.35	0.44
D	4.40	4.60
D1	1.62	1.83
E	2.29	2.60
E1	---	---
e	1.50REF	
e1	3.00REF	
H	3.94	4.25
L	0.89	1.20