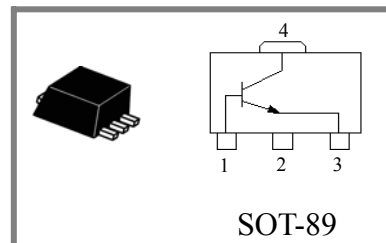


NPN General use transistor

1.2W 3A 30V

**Applications:** Can be used for switching and amplifying in various electrical and electronic equipments.



## MA RATING

Parameters	Symbol	Rating	Unit
Collector-emitter voltage ( $I_B=0$ )	$V_{CEO}$	30	V
Collector-base voltage ( $I_E=0$ )	$V_{CBO}$	40	V
Emitter - base voltage ( $I_C=0$ )	$V_{EBO}$	5	V
Collector current	$I_C$	3	A
Total power dissipation ( $T_A=25^\circ\text{C}$ )*	$P_{tot}$	1.2	W
Max junction temperature	$T_{jm}$	150	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55~150	$^\circ\text{C}$

\* mounted on printed circuit board.

Characteristics (Unless otherwise specified,  $T_A=25^\circ\text{C}$ )

Parameters		symbol	Test condition	min	typ	max	unit
Collector-emitter breakdown voltage		$V_{(BR)CEO}$	$I_C=10\text{mA}$ , $I_B=0$	30	—	—	V
Collector-base breakdown voltage		$V_{(BR)CBO}$	$I_C=1\text{mA}$ , $I_E=0$	40	—	—	V
Emitter- base breakdown voltage		$V_{(BR)EBO}$	$I_E=1\text{mA}$ , $I_C=0$	5	—	—	V
Forward current transfer ratio <sup>1)</sup>	R	$h_{FE}$	$V_{CE}=2\text{V}$ ; $I_C=1\text{A}$	180	—	390	—
	S			270	—	560	—
Collector-base cutoff current		$I_{CBO}$	$V_{CB}=30\text{V}$ , $I_E=0$	—	—	1	$\mu\text{A}$
Collector-emitter saturation voltage <sup>1)</sup>		$V_{CE(sat)}$	$I_C=2\text{A}$ , $I_B=200\text{mA}$	—	—	0.5	V
Transition frequency		$f_T$	$I_C=100\text{mA}$ , $V_{CE}=5\text{V}$ , $f=100\text{MHz}$	—	90	—	MHz

<sup>1)</sup> pulse method:  $t_w:300\mu\text{s}$ , duty ratio  $\leq 2\%$ .

## Typical curve

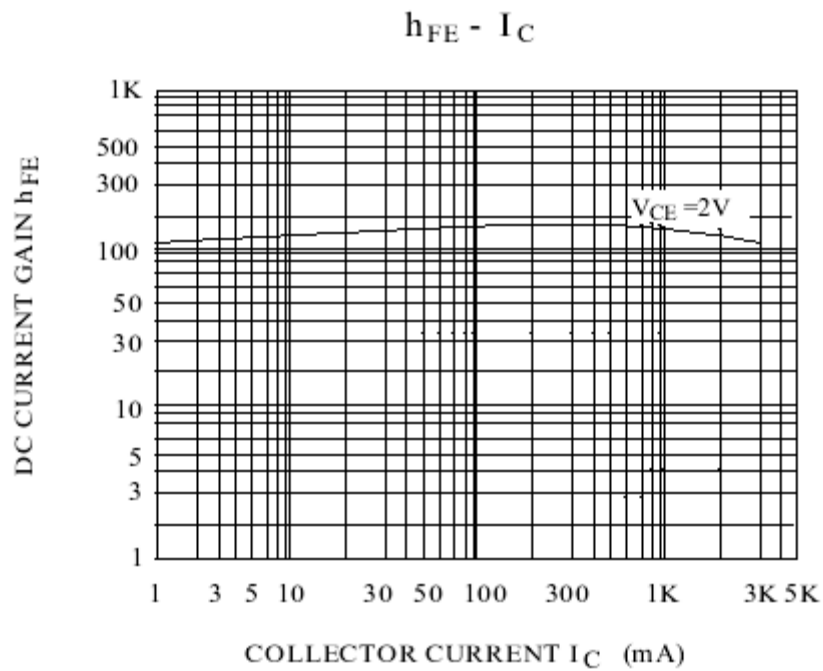
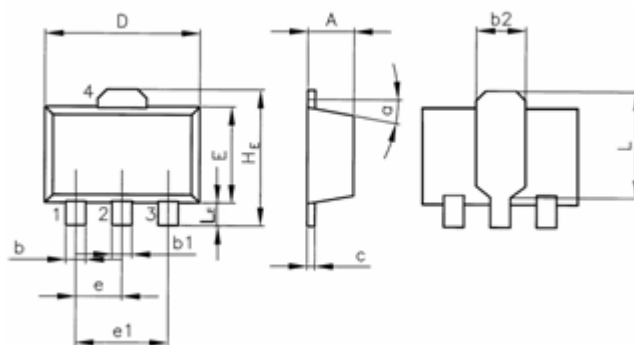


fig.1 Typical curve

## Outline dimensions

unit: mm



dimensions symbol	SOT-89		
	min	type	max
A	1.4	—	1.6
b	0.35	—	0.55
b1	0.4	—	0.65
b2	—	1.6	—
c	0.35	—	0.45
D	4.4	—	4.6
E	2.35	—	2.55
e	—	1.5	—
e1	—	3	—
$H_E$	—	4.15	—
L	—	2.7	—
LE	—	1.0	—
$\alpha$	—	5°	—

Fig.2 Outline dimensions

单击下面可查看定价，库存，交付和生命周期等信息

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