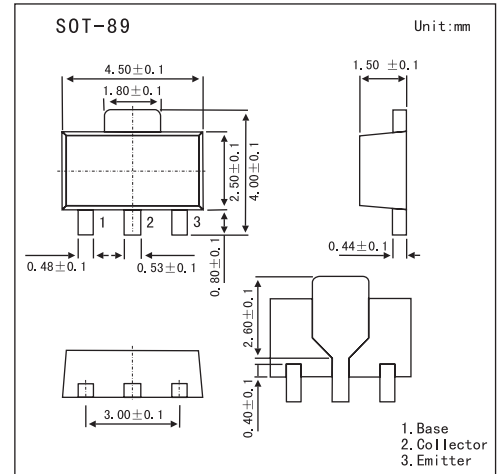


## NPN Epitaxial Planar Silicon Transistors

## 2SC4132

## ■ Features

- High breakdown voltage
- Low collector output capacitance
- High transition frequency  $f_t=80\text{MHz}$

■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Rating	Unit
collector-base voltage	$V_{CB0}$	120	V
collector-emitter voltage	$V_{CE0}$	120	V
emitter-base voltage	$V_{EB0}$	5	V
collector current	$I_C$	2	A
	$I_{CP}$	3	A *1
CollectorPower Dissipation	$P_C$	0.5	W *2
		2	W
Junction Temperature	$T_J$	150	$^\circ\text{C}$
storage Temperature	$T_{stg}$	-55 to 150	$^\circ\text{C}$

\*1 Single pulse  $p_w=10\text{ms}$

\*2 When mounted on a 40X40X0.7 mm ceramic board.

■ Electrical Characteristics  $T_a = 25^\circ\text{C}$ 

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$BV_{CB0}$	$I_C=50\mu\text{A}$	120			V
collector-emitter breakdown voltage	$BV_{CE0}$	$I_C=1\text{mA}$	120			V
Emitter-base breakdown voltage	$BV_{EB0}$	$I_E=50\mu\text{A}$	5			V
Collector cutoff current	$I_{CBO}$	$V_{CB}=100\text{V}$			1	$\mu\text{A}$
Emitter out current	$I_{EBO}$	$V_{EB}=4\text{V}$			1	$\mu\text{A}$
Emitter-emitter saturation voltage	$V_{CE(sat)}$	$I_C/I_B=1\text{A}/0.1\text{A}$			0.4	V
DC current transfer ratio	$h_{FE}$	$V_{CE}/I_C=5\text{V}/0.1\text{A}$	82		390	
Transition frequency	$f_t$	$V_{CE}=5\text{V}, I_E=-0.1\text{A}, f=30\text{MHz}$		80		MHz
Output capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0\text{A}, f=1\text{MHz}$		20		pF

## ■ hFE Classification

TYPE	CBP	CBQ	CBR
Rank	P	Q	R
Marking	82 to 180	120 to 270	180 to 390