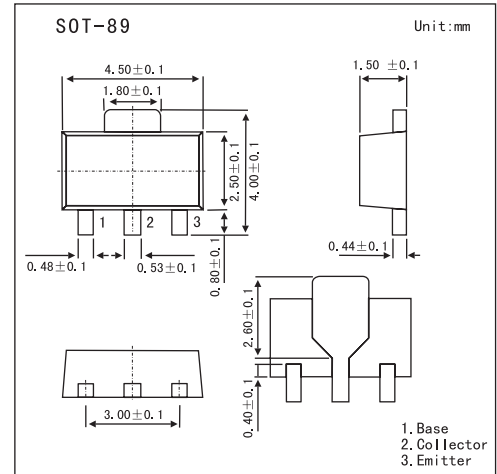


NPN Epitaxial Planar Silicon Transistors

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	Testconditons	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	μA
Emitter out current	I_{EBO}	$V_{EB}=4\text{V}$			1	μA
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

■ h_{FE} Classification

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