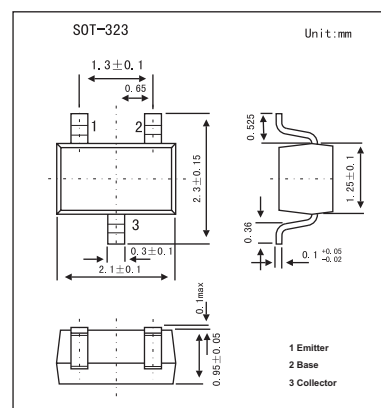


Silicon NPN Epitaxial Planar

2SC3929A

■ Features

- Low noise voltage NV.
- High forward current transfer ratio h_{FE} .



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

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	55	V
Collector-emitter voltage	V_{CEO}	55	V
Emitter-base voltage	V_{EBO}	5	V
Collector current	I_C	50	mA
Peak collector current	I_{CP}	100	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_J	150	$^\circ\text{C}$
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$

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

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base voltage	V_{CBO}	$I_C = 10\mu\text{A}$, $I_E = 0$	55			V
Collector-emitter voltage	V_{CEO}	$I_C = 2\text{ mA}$, $I_B = 0$	55			V
Emitter-base voltage	V_{EBO}	$I_E = 10\mu\text{A}$, $I_C = 0$	5			V
Base-emitter voltage	V_{BE}	$V_{CE} = 1\text{ V}$, $I_C = 100\text{ mA}$		0.7	1.0	V
Collector-base cutoff current	I_{CBO}	$V_{CB} = 10\text{ V}$, $I_E = 0$			0.1	μA
Collector-emitter cutoff current	I_{CEO}	$V_{CE} = 10\text{ V}$, $I_B = 0$			1	μA
Forward current transfer ratio	h_{FE}	$V_{CE} = 5\text{ V}$, $I_C = 2\text{ mA}$	180		700	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 100\text{ mA}$, $I_B = 10\text{ mA}$			0.6	V
Transition frequency	f_T	$V_{CB} = 5\text{ V}$, $I_E = 2\text{ mA}$, $f = 200\text{ MHz}$		100		MHz
Noise voltage	NV	$V_{CE} = 10\text{ V}$, $I_C = 1\text{ mA}$, $G_v = 80\text{ dB}$, $R_g = 100\text{ k}\Omega$, $F_{\text{function}} = \text{FLAT}$			150	mV

■ h_{FE} Classification

Marking	TR	TS	TT
h_{FE}	180~360	260~520	360~700