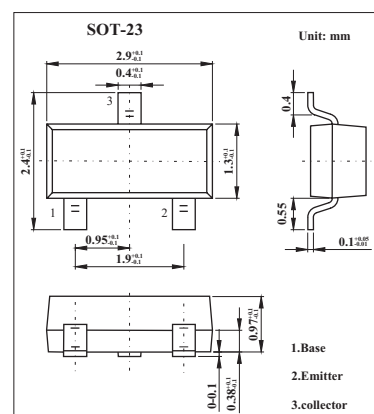


## Silicon PNP Triple Diffused Type

## 2SA1255



### Features

- High voltage.
- Small package.

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	-200	V
Collector-emitter voltage	$V_{CE0}$	-200	V
Emitter-base voltage	$V_{EB0}$	-5	V
Collector current	$I_C$	-50	mA
Base current	$I_B$	-20	mA
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature	$T_{stg}$	-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = -200\text{ V}, I_E = 0$			-0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = -5\text{ V}, I_C = 0$			-0.1	$\mu\text{A}$
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -0.1\text{ mA}, I_E = 0$	-200			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1\text{ mA}, I_B = 0$	-200			V
DC current gain	$h_{FE}$	$V_{CE} = -3\text{ V}, I_C = -10\text{ mA}$	70		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10\text{ mA}, I_B = -1\text{ mA}$		-0.2	-1	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10\text{ mA}, I_B = -1\text{ mA}$		-0.75	-1.5	V
Transition frequency	$f_T$	$V_{CE} = -10\text{ V}, I_C = -2\text{ mA}$	50	100		MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = -10\text{ V}, I_E = 0, f = 1\text{ MHz}$		3	7	pF
Turn-on time	$t_{on}$	pulse width = 5 $\mu\text{s}$ , duty cycle $\leq 2\%$		0.3		$\mu\text{s}$
Storage time	$t_{stg}$	$I_{B2} = -I_{B1} = 0.6\text{ Ma}$		2		$\mu\text{s}$
Fall time	$t_f$	$V_{CC} = -50\text{ V}, I_C = -6\text{ mA}$		0.4		$\mu\text{s}$

### hFE Classification

Marking	OO	OY
Rank	O	Y
hFE	70~140	120~240