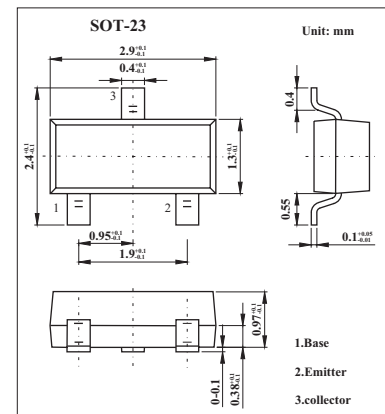


## Silicon NPN Epitaxial

## 2SC3120



■ Features

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

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	30	V
Collector-emitter voltage	$V_{CE0}$	15	V
Emitter-base voltage	$V_{EB0}$	3	V
Collector current	$I_C$	50	mA
Base current	$I_B$	25	mA
Collector power dissipation	$P_C$	150	mW
Junction temperature	$T_j$	125	$^\circ\text{C}$
Storage temperature Range	$T_{stg}$	-55 to +125	$^\circ\text{C}$

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

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector cut-off current	$I_{CBO}$	$V_{CB} = 30\text{V}, I_E = 0$			0.1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB} = 2\text{V}, I_C = 0$			1.0	$\mu\text{A}$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, I_B = 0$	15			V
DC current gain	$h_{FE}$	$V_{CE} = 10\text{V}, I_C = 5\text{mA}$	40	100	200	
Reverse Transfer Capacitance	$C_{re}$	$V_{CB} = 10\text{V}, I_E = 0, f = 1\text{MHz}$		0.6	0.9	pF
Transition Frequency	$f_T$	$V_{CE} = 10\text{V}, I_C = 2\text{mA}$	1500	2400		MHz
Conversion Gain	$G_{ce}$	$V_{CE} = 10\text{V}, I_C = 2\text{mA}, f = 800\text{MHz}$	12	17		dB
Noise Figure	NF	$F_L = 830\text{MHz}$		8		dB

■ Marking

Marking	HB
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