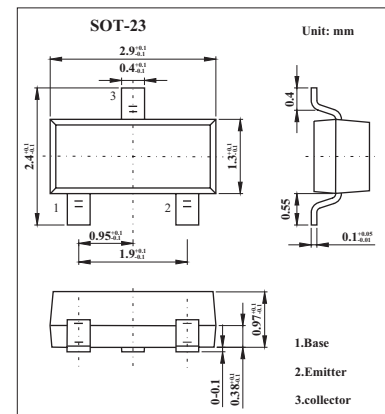


Silicon NPN Epitaxial

2SC3120



■ Features



■ 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	Testconditions	Min	Typ	Max	Unit
Collector cut-off current	I_{CBO}	$V_{CB} = 30\text{V}, I_E = 0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = 2\text{V}, I_C = 0$			1.0	μA
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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