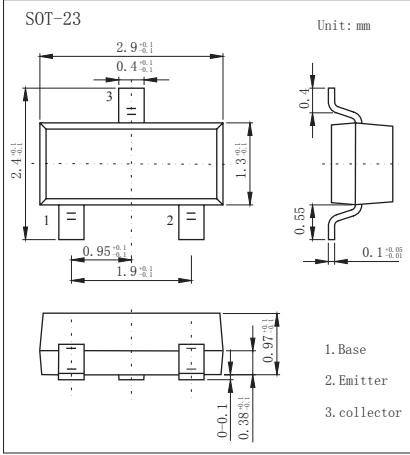


NPN Transistors

S9018

■ Features

- High current gain bandwidth product.
- power dissipation.(PC=200mW)



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

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	15	V
Emitter to Base Voltage	V_{EBO}	5	V
Collector Current to Continuous	I_c	50	mA
Collector Power Dissipation	P_c	200	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 to base breakdown voltage	$V_{(BR)CBO}$	$I_c = 100\ \mu\text{A}, I_E = 0$	30			V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_c = 1\ \text{mA}, I_B = 0$	15			V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	$I_E = 100\ \mu\text{A}, I_c = 0$	5			V
Collector cut to off current	I_{CBO}	$V_{CB} = 12\ \text{V}, I_E = 0$			0.05	μA
Emitter cut to off current	I_{EBO}	$V_{EB} = 3\ \text{V}, I_c = 0$			0.1	μA
DC current gain	h_{FE}	$V_{CE} = 5\ \text{V}, I_c = 1\ \text{mA}$	70		190	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_c = 10\ \text{mA}, I_B = 1\ \text{mA}$			0.5	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_c = 10\ \text{mA}, I_B = 1\ \text{mA}$			1.4	V
Transition frequency	f_T	$V_{CE} = 5\ \text{V}, I_c = 5\ \text{mA}, f = 400\ \text{MHz}$	600			MHz

■ Classification of h_{fe}

Type	S9018-L	S9018-H
Range	70-105	105-190
Marking	J8	