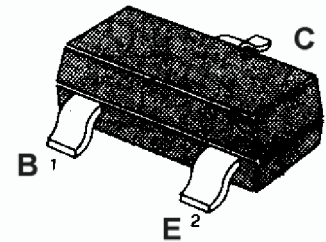


APPLICATION: General purpose applications.

MAXIMUM RATINGS ($T_a=25^\circ\text{C}$)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V_{CB0}	-50	V
Collector-emitter voltage	V_{CE0}	-45	V
Emitter-base voltage	V_{EB0}	-5	V
Collector current	I_c	-100	mA
Collector Power Dissipation	P_c	310	mW
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 55~150	$^\circ\text{C}$

SOT-23


1.Base 2. Emitter 3. Collector

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION
DC Current Gain	h_{FE}	110		800		$V_{CE} = -5\text{V}$, $I_c = -2\text{mA}$
Collector Cut-off Current	I_{CB0}			-0.015	μA	$V_{CB} = -30\text{V}$, $I_E = 0$
Emitter Cut-off Current	I_{EB0}			-0.015	μA	$V_{EB} = -4\text{V}$, $I_c = 0$
Collector-Base Breakdown Voltage	BV_{CB0}	-50			V	$I_c = -0.1\text{mA}$, $I_E = 0$
Collector-Emitter Breakdown Voltage	BV_{CE0}	-45			V	$I_c = -1\text{mA}$, $I_B = 0$
Emitter-Base Breakdown Voltage	BV_{EB0}	-5			V	$I_E = -0.1\text{mA}$, $I_c = 0$
Base-Emitter Voltage	V_{BE}			-0.75	V	$V_{CE} = -5\text{V}$, $I_c = -2\text{mA}$
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$			-0.3	V	$I_c = -100\text{mA}$, $I_B = -0.5\text{mA}$
				-0.65		$I_c = -100\text{mA}$, $I_B = -5\text{mA}$
Base-Emitter Saturation Voltage	$V_{BE(sat)}$		-0.7		V	$I_c = -100\text{mA}$, $I_B = -0.5\text{mA}$
			-0.9			$I_c = -100\text{mA}$, $I_B = -5\text{mA}$
Gain bandwidth product	f_T		300		MHz	$I_c = -10\text{mA}$, $V_{CE} = -5\text{V}$, $f = 100\text{MHz}$
Common Base Output Capacitance	C_{ob}			6	PF	$V_{CB} = -10\text{V}$, $I_E = 0$, $f = 1\text{MHz}$
Noise Figure	N_F		1.2	4	dB	$V_{CE} = -5\text{V}$, $I_c = -0.2\text{mA}$, $f = 1\text{kHz}$, $R_g = 2\text{k}\Omega$

 h_{FE} Classification And Marking

Print Mark	9BA	9BB	9BC
Classification	A	B	C
h_{FE}	110~220	200~450	420~800