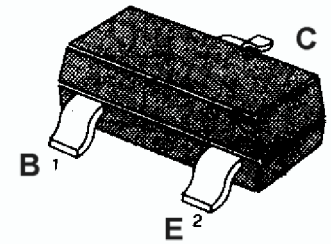


**APPLICATION:** General purpose applications.

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

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	$V_{CB0}$	30	V
Collector-emitter voltage	$V_{CE0}$	30	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.Emmitter 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	$I_{CBO}$			0.015	$\mu\text{A}$	$V_{CB}=30\text{ V}, I_E=0$
Emitter Cut-off Current	$I_{EBO}$			0.015	$\mu\text{A}$	$V_{EB}=5\text{ V}, I_C=0$
Collector-Base Breakdown Voltage	$BV_{CB0}$	30			V	$I_C=0.1\text{ mA}, I_E=0$
Collector-Emmitter Breakdown Voltage	$BV_{CE0}$	30			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-Emmitter Voltage	$V_{BE}$			0.7	V	$V_{CE}=5\text{ V}, I_C=2\text{ mA}$
Collector-Emmitter Saturation Voltage	$V_{CE(sat)}$			0.25	V	$I_C=100\text{ mA}, I_B=0.5\text{ mA}$
			0.2	0.6		$I_C=100\text{ mA}, I_B=5\text{ mA}$
Base-Emmitter 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	$f_T$	150	300		MHz	$I_C=10\text{ mA}, V_{CE}=5\text{ V}, f=100\text{ MHz}$
Common Base Output Capacitance	$C_{ob}$		3.5	6	PF	$V_{CB}=10\text{ V}, I_E=0, f=1\text{ MHz}$
Noise Figure	NF		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	8DA	8DB	8DC
Classification	A	B	C
$h_{FE}$	110~220	200~450	420~800