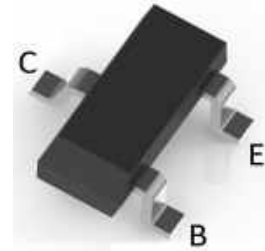
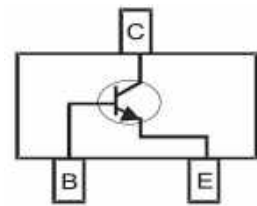


BIPOLAR TRANSISTOR (NPN)
FEATURES

- High current And High voltage
- Excellent h_{FE} Linearity
- Low Noise
- Surface Mount device
- Complementary to 2SA1015


SOT-23

MECHANICAL DATA

- Case: SOT-23
- Case Material: Molded Plastic. UL flammability
- Classification Rating: 94V-0
- Weight: 0.008 grams (approximate)

MAXIMUM RATINGS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	60	V
Collector-Emitter Voltage	V_{CEO}	50	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current	I_C	150	mA
Collector Power Dissipation	P_C	200	mW
Thermal Resistance From Junction To Ambient	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature	T_{STG}	-55 ~+150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Min	Typ	Max	Unit	Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	60			V	$I_C=100\mu\text{A}$, $I_E=0$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	50			V	$I_C=0.1\text{mA}$, $I_B=0$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	5			V	$I_E=100\mu\text{A}$, $I_C=0$
Collector cut-off current	I_{CBO}			0.1	μA	$V_{CB}=60\text{V}$, $I_E=0$
Emitter cut-off current	I_{EBO}			0.1	μA	$V_{EB}=5\text{V}$, $I_C=0$
DC current gain	h_{FE}	130		400		$V_{CE}=6\text{V}$, $I_C=2\text{mA}$
Collector-emitter saturation voltage	$V_{CE(sat)}$			0.25	V	$I_C=100\text{mA}$, $I_B=10\text{mA}$
Base-emitter saturation voltage	$V_{BE(sat)}$			1	V	$I_C=100\text{mA}$, $I_B=10\text{mA}$
Transition frequency	f_T	80			MHz	$V_{CE}=10\text{V}$, $I_C=1\text{mA}$, $f=30\text{MHz}$

CLASSIFICATION OF h_{FE}

Rank	L	H
Range	130-200	200-400
Marking	HF	